



सत्यमेव जयते

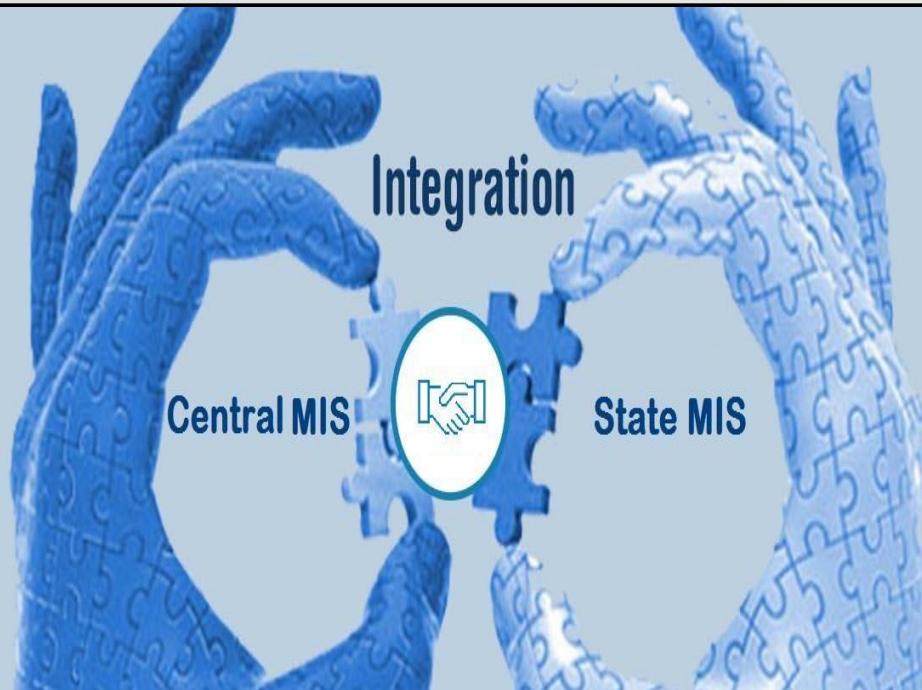
**Pradhan Mantri Krishi Sinchayee Yojana**  
Department of Agriculture, Cooperation and Farmers Welfare  
Ministry of Agriculture & Farmers Welfare, Government of India  
**Micro Irrigation**



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# Technical Web Service Document

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# Web Service Documentation of PMKSY Per Drop More Crop -MI

## Rainfed Farming System (RFS) Division Ministry of Agriculture & Farmers Welfare

### Objective:

This document brief you who to integrate PMKSY –PDMC MI MIS with State MIS. Pre and Post requirement during the integration. Master data need to Mapped, Parameters with type need to pass and calling a web service.

### A. Master Data/Code

#### 1. LG Code:

First and foremost step to be adopted at your end is Location Code (State, District, Sub-District, Block and Villages) must be mapped with LG Directory.

You can refer code at (<http://lgdirectory.gov.in/>) or <http://pmksy.gov.in/microirrigation/RptMasterData.aspx>.

#### 2. Other Master Code need to map are shared at URL after login:

<http://pmksy.gov.in/microirrigation/RptMasterData.aspx>

Following are the list of master code need to mapped

- a. State
- b. District
- c. Block
- d. Sub-District
- e. Village
- f. Financial Year
- g. Activity
- h. Crop
- i. Month
- j. Other Source (for Physical Progress)
- k. Benefit Type
- l. Bank Details in case of Cash

#### 3. Web Service URL:

S. No.	Description	Web Service URL
1	Web Service for Production (Using XML)	<a href="http://pmksy.gov.in/mis/MIDataIntegration.aspx">http://pmksy.gov.in/mis/MIDataIntegration.aspx</a>
2	Web Service for Testing (Using XML)	<a href="http://pmksy.gov.in/mis/MIDataIntegrationTest.aspx">http://pmksy.gov.in/mis/MIDataIntegrationTest.aspx</a>
3	Web Service for Production (Using DataTable in .NET)	<a href="http://pmksy.gov.in/mis/MIDataIntegrationDT.aspx">http://pmksy.gov.in/mis/MIDataIntegrationDT.aspx</a>
4	Web Service for Testing (Using DataTable in .NET)	<a href="http://pmksy.gov.in/mis/MIDataIntegrationTestDT.aspx">http://pmksy.gov.in/mis/MIDataIntegrationTestDT.aspx</a>
5	Testing Web Service Report (Public)	<a href="http://pmksy.gov.in/microirrigation/RptMIIntegration.aspx">http://pmksy.gov.in/microirrigation/RptMIIntegration.aspx</a>

There are two phase for integration

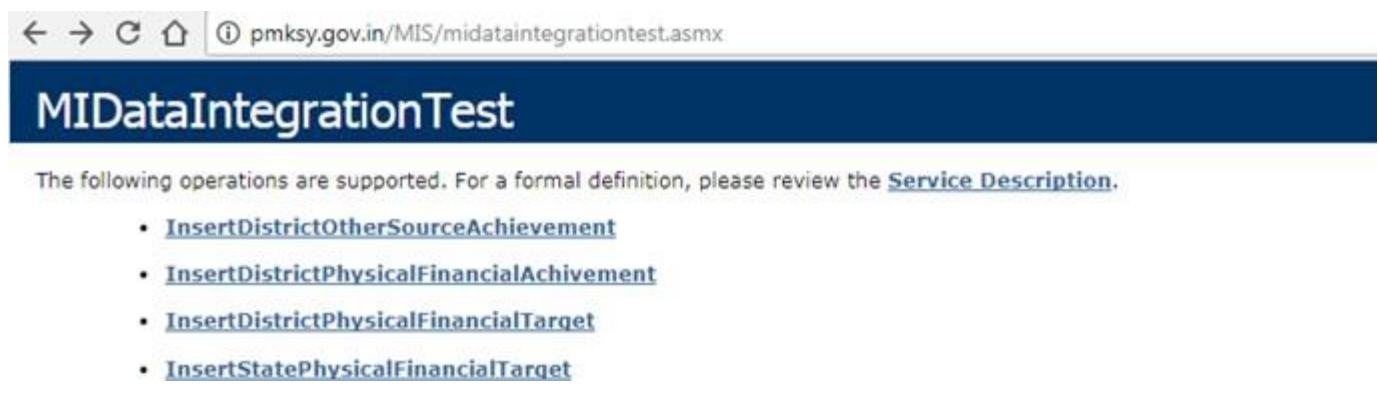
1. MI MIS Integration
2. MI Beneficiary Integration

## 1. MI MIS Integration

In this part state MIS data send to PMKSY PDMC-MI Center MIS data. Following are the list of Master table need before calling a web service

- a. State
- b. District
- c. Financial Year
- d. Activity (73-Drip,74-Sprinkler)
- e. Crop
- f. Month
- g. Other Source (for Physical Progress)

In this phase there are 4 web services:



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## MIDataIntegrationTest

The following operations are supported. For a formal definition, please review the [Service Description](#).

- [InsertDistrictOtherSourceAchievement](#)
- [InsertDistrictPhysicalFinancialAchievement](#)
- [InsertDistrictPhysicalFinancialTarget](#)
- [InsertStatePhysicalFinancialTarget](#)

## 1. Insert State Physical Financial Target

Parameters to be pass:

Column Name	Data Type	Remarks	Is Compulsory
I_FinancialYear_ID	int		Y
I_State_Code	int		Y
I_Activity_ID	int	73-Drip,74-Sprinkler	Y
I_PT	Decimal	Area in Ha	Y
I_FT	Decimal	Amount in Lakh	Y

Example of SQL used for web service :

**Select** [Your Column] as **I\_FinancialYear\_ID**, [Your Column] as **I\_State\_Code**, [Your Column] as **I\_Activity\_ID**, [Your Column] as **I\_PT**, [Your Column] as **I\_FT** from **[Table Name]**

### Procedure Used:

If data exist for **Financial Year, State Code and Activity ID** then it will be removed after that new data will be save.

## 2. Insert District Physical Financial Target

Parameters to be pass:

Column Name	Data Type	Values	Is Compulsory
I_FinancialYear_ID	int		Y
I_State_Code	int		Y
I_District_Code	int		Y
I_Activity_ID	int	73-Drip,74-Sprinkler	Y
I_Crop_Code	int		Y
I_PT	Decimal	Area in Ha	Y
I_FT	Decimal	Amount in Lakh	Y

Example of SQL used for web service:

**Select** [Your Column] as **I\_FinancialYear\_ID**, [Your Column] as **I\_State\_Code**, [Your Column] as **I\_District\_Code**, [Your Column] as **I\_Activity\_ID**, [Your Column] as [**I\_Crop\_Code**], [Your Column] as **I\_PT**, [Your Column] as **I\_FT** from [**Table Name**]

### Procedure Used:

If data exist for **Financial Year, State Code, District Code, Activity ID and Crop Code** then it will be removed after that new data will be save.

## 3. Insert District Physical Financial Achievement

Parameters to be pass:

Column Name	Data Type	Values	Is Compulsory
I_FinancialYear_ID	int		Y
I_State_Code	int		Y
I_District_Code	int		Y
I_Activity_ID	int	73-Drip,74-Sprinkler	Y
I_Crop_Code	int		Y
I_Month_ID	int		Y
I_PT	Decimal	Area in Ha	Y
I_FT	Decimal	Amount in Lakh	Y

Example of SQL used for web service:

**Select** [Your Column] as **I\_FinancialYear\_ID**, [Your Column] as **I\_State\_Code**, [Your Column] as **I\_District\_Code**, [Your Column] as **I\_Activity\_ID**, [Your Column] as [**I\_Crop\_Code**], [Your Column] as **I\_Month\_ID**, [Your Column] as **I\_PT**, [Your Column] as **I\_FT** from [**Table Name**]

### Procedure Used:

If data exist for **Financial Year, State Code, District Code, Activity ID, Crop Code and Month Code** then it will be removed after that new data will be save.

## 4. Insert District Other Source Achievement

Parameters to be pass:

Column Name	Data Type	Values	Is Compulsory
I_FinancialYear_ID	int		Y
I_State_Code	int		Y
I_District_Code	int		Y
I_Activity_ID	int	73-Drip,74-Sprinkler	Y
I_OtherSource_ID	int		Y
I_Month_ID	int		Y
I_PT	Decimal	Area in Ha	Y
I_FT	Decimal	Amount in Lakh	Y

Example of SQL used for web service :

**Select** [Your Column] as **I\_FinancialYear\_ID**, [Your Column] as **I\_State\_Code**, [Your Column] as **I\_District\_Code**, [Your Column] as **I\_Activity\_ID**, [Your Column] as **I\_OtherSource\_ID**, [Your Column] as **I\_Month\_ID**, [Your Column] as **I\_PT**, [Your Column] as **I\_FT** from **[Table Name]**

### Procedure Used:

If data exist for **Financial Year, State Code, District Code, Activity ID, Other Source Code and Month Code** then it will be removed after that new data will be save.

**Note\*** : 1. Production server will accept 2017 and onwards data, but for testing purpose you can test any financial year data.

2. Test data can also check using URL <http://pmksy.gov.in/microirrigation/RptMIIntegration.aspx>
3. After success or failure of web service response will send back action log of completed and affected records.
4. Updated/Delete not performed after date is Locked.

## 2. MI Beneficiary Integration New Version

In this part state Beneficiary details send to PMKSY PDMC-Beneficiary Center MIS. Following are the list of Master table need before calling a web service

- a. State
- b. District
- c. Block
- d. Sub-District
- e. Village
- f. Financial Year
- g. Activity (73-Drip,80-Large Volume Sprinkler System (Rain Gun),81-Portable Sprinkler,82-Mini Sprinkler,83-Micro Sprinkler,84-Semi-Permanent Sprinkler)
- h. Crop
- i. Benefit Type
- j. Bank ID in case of Cash payment mode

In this phase there are 3 web services:

The following operations are supported. For a formal definition, please review the [Service Description](#).

- [InsertBeneficiaryActivities](#)
- [InsertBeneficiaryCrop](#)
- [InsertBeneficiaryTransaction](#)

### 1. Insert Beneficiary Activity

Parameters to be pass:

Column Name	Data Type	Remarks	Is Compulsory
BA_Financial_Year_ID	Int		Y
BA_StateCode	int		Y
BA_DistrictCode	Int		Y
BA_BlockCode	Int	0 - If Block Code is not Available	Y
BA_BlockName	Varchar(60)	If Block Code is not Available then Block Name otherwise blank ""	Y
BA_VillageCode	Int	0 - If Village Code is not Available	Y
BA_VillageName	Varchar(60)	If Village Code is not available then Village Name otherwise blank ""	Y
BA_ActivityID	int	73-Drip, 80-Large Volume Sprinkler System (Rain Gun), 81-Portable Sprinkler, 82-Mini Sprinkler,	Y



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		83- Micro Sprinkler, 84- Semi-Permanent Sprinkler	
BA_LocalID	Varchar(20)	Beneficiary identification unique code at state's MIS	Y
BA_Name	nVarchar(100)		Y
BA_Father_Name	nVarchar(100)		Y
BA_DOB	Datetime	'dd-MMM-YYYY' or "(blank)	N
BA_EmailID	Varchar(50)	Valid Email ID or blank ""	N
BA_MobileNo	Char(10)	Valid Mobile No or blank ""	N
BA_Gender	Char(1)	M-Male, F- Female, T- Transcend	Y
BA_IsAadhar	Char(1)	A- Aadhar, E-(Enrollment/Other)	Y
BA_AadharNo	Bigint	12 digit valid aadhar number.	Y
BA_IsAadharvarified	Char(1)	Y- If aadhar no is verified, N-If aadhar no is not verified	Y
BA_IsAadharAndBankAccLinked	Char(1)	Y-If aadhar no is linked with bank account No., N-if aadhar no is <b>not</b> linked with bank account No.	Y
BA_AadharVerifyingMode	Char(1)	O- Verified OTP on registered mobile Number. N- Demo authenticate (Name,Gender) D- Demo authenticate (Gender,DOB,Mobile) B- Biometric authentication Else "(blank)	Y
BA_Categoryid	Char(4)	GEN, OBC, SC, ST	Y
BA_Address	nVarchar(250)		Y
BA_PinCode	Int	6 digit valid Pin code.	Y
BA_KhashraNo	Varchar(200)		Y
BA_Area	Decimal	In Ha	Y
BA_Gap_DS	Varchar(30)	Gap between Drip/Sprinkler in Meter Example (0.5*1.2)	Y
BA_FarmerClass	Varchar(1)	S- Small/Marginal Farmers, O- Other	Y
BA_WaterSource	Int	1-Tube well, 2-Pump Set, 3-Solar, 4-Pond, 0-Other	Y
BA_Action	Char(1)	S-Save New Record, U-Update, D-Delete	Y

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Department_AR_HR_ID	BigInt	Identification of department wise 1 is for Agriculture and 2 is for Horticulture.	Y
Month_ID	Int	Identification of Month wise data. Example. Jan for 1, feb for 2, march for 3. etc. Enter with month ID.	Y

### Example of SQL used for web service :

Select [Your Column] as **BA\_Financial\_Year\_ID**, [Your Column] as **BA\_StateCode**, [Your Column] as **BA\_DistrictCode**, [Your Column] as **BA\_BlockCode**, [Your Column] as **BA\_BlockName**, [Your Column] as **BA\_VillageCode**, [Your Column] as **BA\_VillageName**, [Your Column] as **BA\_ActivityID**, [Your Column] as **BA\_LocalID**, [Your Column] as **BA\_Name**, [Your Column] as **BA\_Father\_Name**, [Your Column] as **BA\_DOB**, [Your Column] as **BA\_EmailID**, [Your Column] as **BA\_MobileNo**, [Your Column] as **BA\_Gender**, [Your Column] as **BA\_IsAadhar**, [Your Column] as **BA\_AadharNo**, [Your Column] as **BA\_IsAadharvarified**, [Your Column] as **BA\_IsAadharAndBankAcLinked**, [Your Column] as **BA\_AadharVerifyingMode**, [Your Column] as **BA\_Categoryid**, [Your Column] as **BA\_Address**, [Your Column] as **BA\_PinCode**, [Your Column] as **BA\_KhashraNo**, [Your Column] as **BA\_Area**, [Your Column] as **BA\_Gap\_DS**, [Your Column] as **BA\_FarmerClass**, [Your Column] as **BA\_WaterSource**, [Your Column] as **BA\_Action** from [Table Name], [Your Column] as **Department\_AR\_HR\_ID** from [Table Name], [Your Column] as **Month\_ID** from [TableName].

### Procedure Used:

Data Insert, Update and Delete on the bases of **BA\_Action** provided in web service.

## 2. Insert Beneficiary Transaction Details

Column Name	Data Type	Remarks	Is Compulsory
BT_FinancialYear_ID	Int		Y
BT_LocalTran_ID	Varchar(20)	Beneficiary's Transaction identification unique code/No at state's MIS	Y
BT_LocalID	Varchar(20)	Beneficiary identification unique code at state's MIS	Y
BT_StateCode	int		Y
BT_BenefitType	Tinyint	1-Cash, 2-Kind	Y
BT_CentralBenefitAmount	Bigint	Central Share -Amount in Rs. ( <u>Cash and Kind Both</u> )	Y
BT_StateBenefitAmount	Bigint	State Share -Amount in Rs. ( <u>Cash and Kind Both</u> ) -	Y
BT_StateTopupBenefitAmount	Bigint	State Top up -Amount in Rs. ( <u>Cash and Kind Both</u> )	Y



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BT_TransactionID	Varchar(20)	Transaction No in case of <u>Cash</u> According to <b>BT_TransactionMode</b> (101, 102,103,104) Otherwise blank ""	Y
BT_BenefitedChequeNo	Varchar(6)	If transaction done by Cheque in case of <u>Cash</u> According to <b>BT_TransactionMode</b> (151, 152,153,154) Otherwise blank ""	Y
BT_BenefitedItem	nVarchar(30)	Name of the Item which is benefited	Y
		as <u>Kind</u> otherwise blank ""	
BT_Action	Char(1)	<b>S</b> -Save New Record, <b>U</b> -Update, <b>D</b> -Delete	Y
BT_BankID	bigint	Bank ID in case of <u>Cash</u> otherwise blank ""	Y
BT_IFSCCode	Varchar(11)	Bank IFSC Code in case of <u>Cash</u> otherwise blank ""	Y
BT_AccountNo	bigint	Bank Account No in case of <u>Cash</u> (numeric digit between 9 to 18), 0 in case of Kind	Y
BT_TransactionMode	int	Transaction Mode in case of <u>Cash</u> <b>101</b> - Aadhar Base Payment (ABP) <b>102</b> - National Electronic Fund Transfer (NEFT) <b>103</b> - Real Time Gross Settlement (RTGS) <b>104</b> - Aadhar Enable Payment System (AEPS) <b>151</b> -Cash <b>152</b> -Cheque <b>153</b> - Demand draft <b>154</b> - Money Order <b>0</b> in case of Kind	Y
BT_TransactionDate	datetime	'dd- <b>MMM</b> -YYYY' (Cash and Kind Both)	Y
BA_Action	Char(1)	<b>S</b> -Save New Record, <b>U</b> -Update, <b>D</b> -Delete	Y
Department_AR_HR_ID	BigInt	<b>Identification of department wise</b> <b>1</b> is for Agriculture and <b>2</b> is for Horticulture.	Y
Month_ID	Int	<b>Identification of Month wise data.</b> <b>Example. Jan for 1, Feb for 2, march for 3. etc. Enter with month ID.</b>	Y

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Example of SQL used for web service :

**Select** [Your Column] as **BT\_FinancialYear\_ID**, [Your Column] as **BT\_LocalTran\_ID**, [Your Column] as **BT\_LocalID**, [Your Column] as **BT\_StateCode**, [Your Column] as **BT\_BenefitType**, [Your Column] as **BT\_CentralBenefitAmount**, [Your Column] as **BT\_StateBenefitAmount**, [Your Column] as **BT\_StateTopupBenefitAmount**, [Your Column] as **BT\_TransactionID**, [Your Column] as **BT\_BenefitedChequeNo**, [Your Column] as **BT\_BenefitedItem**, [Your Column] as **BT\_BankID**, [Your Column] as **BT\_IFSCCode**, [Your Column] as **BT\_AccountNo**, [Your Column] as **BT\_TransactionMode**, [Your Column] as **BT\_TransactionDate**, [Your Column] as **BT\_Action** from [Table Name], [Your Column] as **Department\_AR\_HR\_ID** from [Table Name], [Your Column] as **Month\_ID** from [TableName].

**Note :** **BT\_AccountNo** is mandatory in case of Cash

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## Insert Beneficiary Crops

Column Name	Data Type	Remarks	Is Compulsory
BC_FinancialYear_ID	Int		Y
BC_LocalID	Varchar(20)		Y
BC_StateCode	int		Y
BC_CropID	int		Y
BC_Action	Char(1)	S-Save New Record, U-Update, D-Delete	Y

Example of SQL used for web service:

**Select** [Your Column] as **BC\_FinancialYear\_ID**, [Your Column] as **BC\_LocalID**, [Your Column] as **BC\_StateCode**, [Your Column] as **BC\_CropID**, [Your Column] as **BC\_Action** from [**Table Name**]

**Note\* :**

1. Data can also check using URL <http://pmksy.gov.in/microirrigation/RptMIIntegration.aspx>
2. After success or failure of web service response will send back action log of completed and affected records.
3. Updated/Delete not performed after date is locked.

## C. Example of Calling a Web Service Using XML

```
protected void Button1_Click(object sender, EventArgs e)
```

```
{  
    string select = @"Select [Your Column] as I_FinancialYear_ID, [Your Column] as  
    I_State_Code, [Your Column] as I_District_Code, [Your Column] as I_Activity_ID, [Your  
    Column] as I_OtherSource_ID, [Your Column] as I_Month_ID, [Your Column] as I_PT, [Your  
    Column] as I_FT from Table_Name Where I_Financial_YearID=1003";  
  
    MIIntegration.MIDataIntegrationSoapClient ss = new  
    MIIntegration.MIDataIntegrationSoapClient();  
    XmlDocument xml = IL.WebServiceNRSC.GetXMLParser(select);  
    label1.Text=ss.InsertStatePhysicalFinancialTarget(xml.DocumentElement);  
}
```

```
public static XmlDocument GetXMLParser(String Sql)
```

```
{  
    XmlDocument xml = new XmlDocument();  
    StringBuilder sb = new StringBuilder();  
    try  
    {  
        sb.Append("<?xml version='1.0' encoding='utf-8' ?>");  
        sb.Append("<DocumentElement>");  
  
        using (SqlCommand cmd = new SqlCommand(Sql))  
        {  
            cmd.CommandType = CommandType.Text;  
            DataTable dt = Execute.select_DataTable(cmd);  
            foreach (DataRow dr in dt.Rows)  
            {  
                sb.Append("<T1>");  
                foreach (DataColumn dc in dt.Columns)  
                sb.Append("<" + dc.ColumnName + ">" + dr[dc].ToString() +  
                    "</" + dc.ColumnName + ">");  
                sb.Append("</T1>");  
            }  
        }  
        sb.Append("</DocumentElement>");  
    }  
    catch (Exception ex)  
    {  
        sb.Clear();  
    }  
    xml.LoadXml(sb.ToString());  
    return xml;  
}
```

### D. Example of Calling a Web Service Using DataTable (for .NET Application)

```
protected void Button1_Click(object sender, EventArgs e)
```

```
{  
    string select = @"Select [Your Column] as I_FinancialYear_ID, [Your Column] as  
    I_State_Code, [Your Column] as I_District_Code, [Your Column] as I_Activity_ID, [Your  
    Column] as I_OtherSource_ID, [Your Column] as I_Month_ID, [Your Column] as I_PT, [Your  
    Column] as I_FT from Table_Name Where I_Financial_YearID=1003";  
  
    MIIntegration.MIDataIntegrationSoapClient ss = new  
    MIIntegration.MIDataIntegrationSoapClient();  
    DataTable dt = IL.WebServiceNRSC.GetDataTable(select);  
    label1.Text=ss.InsertStatePhysicalFinancialTarget(dt);  
}
```

**For any query and support**



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**Rainfed Farming System,  
Department of Agriculture and Farmers Welfare,  
Ministry of Agriculture and Farmers Welfare,  
Government of India**

**Version 1.6**