



MOSPI API PLATFORM

API USER MANUAL FOR CONSUMER PRICE INDEX (CPI)



COMPUTER CENTRE Ministry of Statistics and Programme Implementation

Version Control Table

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1. Introduction

1.1. This user guide documents the usage of the API platform of the Ministry of Statistics and Programme Implementation.

1.2. The **Base URL** for accessing the API platform is: <u>https://api.mospi.gov.in</u> 1.3. On accessing this **Base URL**, a user manual button is available which will download a PDF file with the documentation and usage details of the API.

1.4. A Metadata button on this page will download an XLS file for the codes used in the parameters to fetch data using the API.

1.5. The following process is to be followed for fetching the CPI data through the APIs: 1.5.1. The user is required to sign up the first time using a unique email which can be used only once. This API can be accessed at Base

URL/api/users/usersignup

- 1.5.2. The user is required to obtain an access token which is valid for 30 minutes to fetch the required data through the APIs. Without access token the APIs will fetch only the first 10 records. This API can be accessed at **Base URL/api/login**
- 1.5.3. Using the platform, the Group and SubGroup level CPI Index and Inflation records can be fetched from Jan 2011 onwards. This API can be accessed at

Base URL/api/getCPIIndex

1.5.4. Using the platform, the Item level Index and Inflation records can be fetched from Jan 2011 onwards. This API can be accessed at Base URL/api/getItemIndex:

1.6. The execution of the above process is detailed in the following sections through Swagger tool and Postman.

- 1.7. Swagger UI tool is for documentation purpose of the API for domain users to understand the filter parameters and API response headers. Access token is not available via the Swagger tool and will return only 10 records.
- 1.8. Postman tool is for technical users to understand the API execution process via the parameters passed.

2. User Registration

- 2.1. Using Swagger, the steps for executing the APIs are mentioned below:
 - 2.1.1. The users of the platform are required to sign up for using this API platform

by accessing the Base URL/api/users/usersignup.

2.1.2. The below screen will open on accessing this URL

User Registration First time users can register here.

2.1.3. Click anywhere on the Green tile shown above and then click on the "Try it out" button on the right as indicated below. The fields in the Request Body section will become editable.

Try it out
application/json ~

2.1.4. Enter the details in the Request Body as below:



"password": "Test@12345",

"organization": "Ministry of Statistics and Programme Implementation",

"purpose": "View/Download the Data",

"gender": "Male"

2.1.4.1. A valid email is required in the username field. Only '@' special character is allowed in this field.

2.1.4.2. One email can be used for registration only once.

2.1.4.3. No special characters are allowed in the organization, purpose fields and gender.2.1.4.4. Click on the Execute button. The API response code and description will be

returned. A response code of 200 indicates the execution was successful.



- 2.2. Using Postman, the steps are mentioned below:
 - 2.2.1. Download Postman from any web browser by visiting the link

https://www.postman.com/downloads/

Download Postman

Download the app to get started using the Postman API Platform today. Or, if you prefer browser experience, you can try the web version of Postman.

The Postman app	Home Workspaces V API Network V Explore	
Download the app to get started with the Postman API	D Notion's Public Workspace New Import 🖄 Overview	0
Platform.	Codections + ₩/Databas	sos / Retrieve a
Windows 64-bit	Votion API OET OET	https://api.noti
By downloading and using Postman, I agree to the Privacy Policy and	→ C Databases → Databases → APIs > cer Retrieve a database	uth) Headers (
Release Notes	A right Query a database Query param Motk Servers > right Create a database KEY	5
Not your OS? Download for Mac (Intel Chip, Apple Chip) or Linux (x64, arm64)	Norters > Parce Vpdate a database Key	
Inca, milical	el ^a _q > Blocks KEY	5
Pestman on the web		

2.2.2. After downloading Postman app, open the app sign in or use the "lightweight API Client" and you will see the following menu:

	e New Import	Overview O Getting started POST http://10.24.89.9/a	cet http://10.24.89.9/apl • cet http://10.24.89.9/apl • cet http://10.24.89.9/	/api + POST http://10.24.89.9/aj + OET Untitled Request	+ v No environment v	E3
+		Untitled Request			🛱 Save 🗸 🥒 🖾	
		GET - Finter URL or paste text			Send ~	2
Ð	13 Your collection +	Params Authorization Headers.(6) Body Pre-request Script	Tests Settings		Cookies	
History	Autorization #	Query Params	Makes	Description	us Bulk Brit	
82	Tipe. Miley -	Kay	Value	Description		
	Create a context-tion your requests and exception of the second of the requests and events in the second of the writibles for all requests in it. Creater Collection	Response	Enter the LBL, and click Send to get a response			
	3.2.3 Cl	ick the "+" button to	add a request.			
u Ocat	3.2.3 Cl	ick the "+" button to	add a request.	//1 a per http://1 a pert http:// a pert	Listified L v. No.e	nuironment
n ⊘ Get	3.2.3 Cl	ick the "+" button to p://• GET http://1 • GET http://1 • GET http://1 •	add a request. GET http://l • GET Get nar • GET New Re • GET http:/	//1 • GET http://1 • POST http:// • GET	Untitled + No e	nvironment
n () Get	3.2.3 Cl tting: post http:// • post http st	ick the "+" button to p://• cer http://1• cer http://1• cer http://1•	add a request. GET http://1 • GET GET nar • GET New Re • GET http:/	//1 • GET http://1 • POST http:// • GET	Untitled + V No e	nvironment
n ⊘ Get	3.2.3 C1	ick the "+" button to p://• GET http://1 • GET http://1 •	add a request. Ger http://1 • Ger Get nar • GET New Re • GET http:/	//1 • GET http://1 • POST http:// • GET	Untitled + No e	nvin

Description

*** Bulk Edit

Query Params

Key

3.2.4 Expand the method button.

Value

0ET - 10	ntar L00, 7 pointe toot.		Send ~
GET	Heiders (6) Body Pre-request Script Tests Settings		Cookian
POST			
PUT	Value	Description	···· Bulk Edit
PATCH	Value	Description	
DELETE			
HEAD			
OPTIONS			

- 2.2.3. Use the signup API to register user for using the API platform, as described below.
- 2.2.3.1. Change the method to POST
- 2.2.3.2. Enter the API BASE URL/api/users/usersignup in the textbox
- 2.2.3.3. Select Body, raw radio button and select JSON from the dropdown where JSON is shown by default as highlighted in Yellow below
- 2.2.3.4. Enter the data for the signup user details as in step#2.1.4 but make sure the username is unique as shown below and click Send.

2.2.3.5. A success message will be sent as the response of the API indicating user signup is successfull as shown above.

3. Login Process

3.1. The below steps describe the process to get the access token for the API through

POSTMAN

3.2. Select "POST" and add the URL <u>http://api.mospi.gov/api/login</u>

- 3.3. Select Body, raw radio button and select JSON from the dropdown where JSON is shown by default as highlighted in Yellow below
- 3.4. Enter username and password as shown below using the same credentials used during signup process:

"username":"<u>test78324@test.com</u>",

{

https://api.mospi.gov.in/api/users/usersignup		🖺 Save
OST v https://api.mospi.gov.in/api/users/usersignup		Send ~
ams Authorization Headers (9) Body • Pre-request Script Tests Settings		Cookies
none 🔘 form-data 🍈 x-www-form-urlencoded 💿 raw 🔘 binary JSON 🗸		Beautify
<pre>! "username" : "naveen@gmail.com",</pre>		
3 "password": "123",		
4"gender" : "M",		
5 ····"organization" : "MOSPI",		
6 ·····purpose" : "Test"		
7		
8 8		
3		
Conkies Headers (10) Test Results	C Status 200 OK Time 195 ms Size 726 B	Save Response
		oure neoponoe
atty Raw Preview Visualize JSON ~ 📅		🔳 Q
1		
<pre>"msg": "User registered successfully.",</pre>		
statusCode": true,		
"response": {		
5 "id": 112,		
s "gender": "M",		
7 "username": "naveen@gmail.com",		
3 "organization": "MOSPI",		
<pre>"purpose": "Test",</pre>		
) "pessword": "MTIz",		
"role": "users",		
2 "isActive": "1",		
"updatedAt": "2025-04-30T06:56:56.284Z",		
"createdAt": "2025-04-30T06:56:56.284Z"		
5		
5		
and a second		

}

3.5. Click "Send".



- 3.6. Copy the "Token" value by clicking the "small double square" icon seen in the snapshot above.
- 3.7. Open a notepad and paste the value here. Copy only the value from the "token" element without the Quotes.
- 3.8. Use this token in the next sections for fetching the complete data from Postman only and NOT Swagger.

4. Accessing Inflation and Index data from Swagger

4.1. **Swagger UI**: Following are the steps for the API execution through the Swagger UI tool:

4.1.1. Access the API **Base URL/cpi** on the web browser. <u>The following page will</u> load.



4.1.2. Click the tile in BLUE as shown above to expand the API

/api/cpi/getCPIIndex.

GET /api/d	cpi/getCPIIndex	~
Parameters		Cancel
Name	Description	
base_year * required (query)	2012 ~	
series * ^{required} (query)	Current	
year	Enter the Year (format YYYY.Comma separated for multiple values)	
<pre>string (query)</pre>	year	
month code	Enter the Month code (from 1-12.Comma separated for multiple values)	
string (auery)	month_code	
state code	Enter the State code (from 1-36 & 99 for all india comma separated for multiple values)	
string (query)	state_code	
group_code	Enter the Group code(Comma separated for multiple values)	
<pre>string (query)</pre>	group_code	
subgroup_code	Enter the Subgroup code(Comma separated for multiple values)	
string (query)	subgroup_code	
sector_code	Enter the Sector code (from 1-3.Comma separated for multiple values)	
<pre>string (query)</pre>	sector_code	
page	Enter the page no. (from 1 to n.)	
<pre>string (query)</pre>	page	
Format * required	Select the Output format	
<pre>string (query)</pre>	JSON	
	Execute	ear

4.1.3. Click "Try it out" to enter the following parameters of the APIto query for the required data:

4.1.3.1. base_year: 2012,2010. Only a single value can be select for this parameter.

4.1.3.2. series: Current series, Back series. Only a single value can be sent for this parameter.

4.1.3.3. year: Comma separated multiple values in the Format YYYY is accepted in this parameter.

4.1.3.4. month_code: Comma separated multiple values in the Format '1,4' is accepted in this parameter. Refer the metadata sheet for

the codes corresponding to the Month names.

4.1.3.5. state_code: Comma separated multiple values Format'1,2'etc,is accepted in this parameter.Refer the metadata sheet for the

State names.

- 4.1.3.6. group_code: Comma separated multiple values in the Format '5,7' etc. is accepted in this parameter. Refer the metadata sheet for the codes corresponding to the Group names.
- 4.1.3.7. subgroup _code: Comma separated multiple values in the Format '1.1.01, 3.1.01' etc. is accepted in this parameter. Refer the metadata sheet for the codes corresponding to the Subgroup names.
- 4.1.3.8. sector_code: Comma separated multiple values in the Format '1,2,3' is accepted in this parameter. Refer the metadata sheet for the codes corresponding to the Subgroup names.
- 4.1.3.9. page: values in the Format '1 to n' is accepted in this parameter.
- 4.1.3.10. Format: CSV or JSON option can be mentioned for the data format returned from the API.

4.1.4. If no value is supplied for a particular parameter then the API will not apply a filter for that parameter.

- 4.1.5. Click on 'Execute' for fetching the data with the applied parameter values.
- 4.1.6. The below is the response of the API in JSON and CSV formats. Click on

the Download button to download the data in a file:



4.2. Postman: Following are the steps for the API execution through Postman tool:4.2.1. The below steps describe the process to get the access token for the API through POSTMAN

4.2.1.1. Select "GET", enter the API **Base URL/api/cpi/getCPIIndex** in the URL field.

4.2.1.2. Fill the Authorization access token (refer Section 3.4 above to generate

the token) and add it in the Headers tab as shown below and click on Send:

time ht	tp://api.mospi.gov.in/api/cpi/getCPlIndex?Year=2021,2016&month=4,5&page=1		Save	
GET	http://api.mospi.gov.in/api/cpi/getCPIIndex?Year=2021,2016&month=4,5&page=1		Send 🗸	G
Params Query F	• Authorization Headers (7) Body Pre-request Script Tests Settings • Params		Cookies	
	Key	Value	Bulk Edit	
	Year	2021,2016		
	month	4,5		
:: 🔽	page	1	Û	
	Key	Value		
	Key	Value	U	

Body Coo	okies Headers (10) Test Results	Status: 200 OK Time: 2.15 s Size: 2.45 KB	Save Response v
Pretty	Raw Preview Visualize JSON V 🚍		🔳 Q
111 112 113 114 115 116 117 118 119 120	"baseyear": "2012", "year": 2025, "month: "January", "state": "Jammu and Kashmir", "sector": "Ruval", "group": "Olothing and Footwear", "subgroup": "", "indlation": "3.11",		
121 122 123 124 125 126 127 128 129 130 131 132	J "met_data": "page": 1. "totalRegords": 3940823, "totalRegords": 394082, "totalRegords": 39408, "totalRegords": 39408, "totalRego		

4.2.1.3. If no parameters are given then the complete data is fetched for the API as shown in the snapshot above.

4.2.1.4. Now enter the required parameters in the Params tab along with Authorization token under Headers tab and click Send as per the below screenshot. The data as per the query parameters is fetched in the JSON/CSV format.

SET y http://api.mospi.gov.in/api/cpi/getCPIIndex?Year=2021,2016&page=1		Send 🗠
ams Authorization Headers (7) Body Pre-request Script Tests Settings ery Params		Cookies
Кеу	Value	Bulk Edit
Year Year	2021,2016	
🔽 page	1	

CO	okies Headers (10) Test Results	C Status: 200 OK Time: 3.24 s Size: 2.45 KB Save Response v
y	Raw Preview Visualize JSON ~ 🛱	🔳 Q
	1	
	"baseyear": "2012",	
	"year": 2025,	
	"month": "January",	
	"state": "Jammu and Kashmir",	
	"sector": "Rural",	
	"group": "Clothing and Footwear",	
	"subgroup": "",	
	"index": "228.6",	
	"inflation": "3.11",	
	"status": "F"	
],	
	"meta_data": {	
	"page": 1,	
	"totalRecords": 394023,	
	"totalPages": 39403,	
3	"recordPerPage": 10	
	3,	
	"msg": "Data fetched successfully",	
	"statusCode": true	
2		1

5. Accessing Item level Inflation and Index data from Swagger

- 5.1. **Swagger UI**: Following are the steps for the API execution through the Swagger UI tool:
 - 5.1.1. Access the API on the web browser: **Base URL/cpi**. <u>The following page will</u> load

Item Indices and Inflation Item level Index and Inflation.		^
OET /api/cpi/getItemIndex	8	~

5.1.2. Click the tile in BLUE as shown above to expand the API /api/cpi/getItemIndex

GET /api/c	pi/getItemIndex	
Parameters		Cancel
Name	Description	
base_year * ^{required} (query)	2012 🗸	
year string (query)	Enter the Year (format YYYY.Comma separated for multiple values) year	
month_code string (query)	Enter the Month code (from 1-12.Comma separated for multiple values) month_code	
item_code string (query)	Enter the Item code item_code	
page string (query)	Enter the page no. (from 1 to n.) page	
Format * ^{required} string (query)	Select the Output format	
	Execute	Clear
Peeperer:		

5.1.2.1. Click "Try it out" to enter the following parameters of the API to query for the required data:

5.1.2.2. base_year:2010,2012,Only single value can be select for this parameter.

5.1.2.3. year: Comma separated multiple values in the Format YYYY is accepted in this parameter.

5.1.2.4. month_code: Comma separated multiple values in the Format '1,4' is accepted in this parameter. Refer the metadata sheet for the codes

corresponding to the Month names.

- 5.1.2.5. Item_code:Comma Separated multiple values in the Format '1.1.01.1.1.02.X,
 - 1.1.01.1.1.01.P' is accepted in this parameter. Refer to the metadata sheet for

the codes corresponding to the Item codes.

- 5.1.2.6 Page: values in the Format '1 to n' is accepted in this parameter.
- 5.1.2.6. Format: CSV or JSON option can be mentioned for the data format returned

from the API.

- 5.1.2.6. If no value is supplied for a particular parameter then the API will not apply a filter for that parameter.
- 5.1.2.7. Click on 'Execute' for fetching the data with the applied parameter values.
- 5.1.2.8. The below is the response of the API in JSON and CSV formats respectively. Click on the Download button to download the data in a file:

Code	Details	
200	Response body	
	Ъ	
	"baseyear": "2010",	
	"year": 2011,	
	"month": "January",	
	"item": "Wheat/atta-pds",	
	index: 102.1,	
	"status": "F"	
).	
	"basevear": "2010".	
	"year": 2011,	
	"month": "January",	
	"item": "Wheat/atta-other Sources",	
	"index": "103.4",	
	"inflation": null,	
	"status": "F"	
	},	
	"baseyear": "2010",	
	"year": 2011,	E Download
	"month": "January",	Download
	Item: Malda,	

Server res	sponse	
Code	Details	
200	Response body	
	baseyear, year, month, item, index, inflation, status	
	2012, 2014, January, Rice - PD5, 90.5, , F	
	2012,2014, January, Rice - Other Sources, 123.7, ,F	
	2012,2014,January,Chira,117.3,,F	
	2012,2014,January,Muri,117.5,,F	
	2012,2014, January, Other Rice Products, 118.9,, F	
	2012,2014,January,Wheat/ Atta - PD5,89.8,,F	
	2012,2014,January,Wheat/ Atta - Other Sources,122.7,,F	
	2012,2014, January, Maida, 120.9, , F	
	2012,2014,January,"Suji, Rawa",118.4,,F	
	2012,2014,January,"Sewai, Noodles",111.3,,F	
	2012,2014, January, Bread (bakery), 117.9,, F	
	2012,2014,January,"Biscuits, Chocolates, etc.",107.8,,F	
	2012,2014, January, Other Cereals, 195.0, , F	
	2012,2014,January,"Cereal Substitutes: Tapioca, etc.",141.5,,F	
	2012,2014, January, Jowar & its Products, 106.0,, F	
	2012,2014,January,Bajra & its Products,123.5,,F	
	2012, 2014, January, Maize & Products, 118.8, ,F	
	2012,2014, January, Small Millets & their Products, 122.5,, F	
	2012,2014, January, Kagi & ILS Products, 130.9, ,F	🔂 Download
	2012,2014, January, Granuing Charges, 117.9, ,F	

5.2. Postman: Following are the steps for the API execution through the Postman tool:5.2.1. Select "GET", enter the API Base URL/api/cpi/getItemIndex in the URL

field.

5.2.2. Fill the Authorization access token (refer Section 3.4 above for the steps to generate the token) and add it in the Headers tab shown below and click Send:

GET	http://api.mospi.gov.in/api/cpi/getitemIndex?Year=2021,2016&page=1		Send 🗸	Cø
Params	Authorization Headers (7) Body Pre-request Script Tests Settings		Cookies	
Query F	arams			
	Key	Value	Bulk Edit	
	Year	2021,2016		
~	page	1		
	Key	Value		

Coo	(les Headers (10) Test Results	C Status: 200 OK Time: 594 ms Size: 1.85 KB Save Response V
etty	Raw Preview Visualize JSON V =	🖷 Q
	"inflation": "8.02",	1
	"status": "F"	
	3.	
	£	
	"baseyear": "2012",	
	"year": 2025,	
	"month": "January",	
	"item": "Baniyan, Socks, Other Hosiery and Undergarments, Etc.(no.)",	
	"index": "187.1",	
	"inflation": "1.46",	
	"status": "F"	
	3	
	3,	
	"meta_data": {	
	"page": 1,	
	"totalRecords": 54732,	
	"totalPages": 5474,	
3	"recordPerPage": 10	
	3,	
	"msg": "Data fetched successfully",	
	"statueCode": true	
0 L	statuscout . the	

- 5.2.3. If no parameters are given then the complete data is fetched for the API shown above.
- 5.2.4. Enter the required parameters in the Params tab along with the authorization token under Headers tab and click Send. The data as per the query parameters is fetched in the JSON/CSV format shown below.

get 🗠	http://api.mospi.gov.in/api/cpi/getitemIndex?Year=2021,2016&page=1&Format=JSON		Send 🗸
Params • Autho	rization Headers (7) Body Pre-request Script Tests Settings		Cookies
Query Params			
Key		Value	Bulk Edit
Year		2021,2016	
Dage page		1	
Format		JSON	
Key		Value	
Pretty Raw	Preview Visualize JSON ~ =>		a Q
2- 82 83 84 85 86 87 88 90 91 92 93 1, 94 "met 95 97 98 99 2,	"status!" F" "status!"F" "baseyear": "2012", "year": 2025, "nonth": "January", "ifeen": "Baniyan, Socks, Other Hosiery and Undergarments, Etc.(no.)", "indext": "J3.1", "inflation": "14.46", "inflation": "14.46", "inflation": "2.46", "status": "F" "status": "F" "status": "F" "status": "Status": "F" "status": "F" "status": "F" "status": "Status": Status: "Status": Status: "Status": Status: "Status": Status: "Status": Status: "Status": Status: S		

6. Accessing the API through Python and Curl

6.1. The Python and CURL scripts for executing the API is available in the below GitHub repo:

https://github.com/CCSPIDev/mospi_api_platform.git
