

Architecture Design Document (ADD)

Crop Production Analysis in INDIA

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Version: 1.0

Last Revised Date: 22-Jan-2023

Document Version Control:

| <u>Date Issued</u> | <u>Version</u> | <u>Description</u> | <u>Author</u> |
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| 22-Jan-2023 | 1.0 | Architecture Design Document | Dibyendu Biswas |
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General Descriptions:

Crop production is one of the fundamental branches of agriculture. Crop production is the basis for providing the livestock industry with feed, and the population with food. Also, crop products are used in many industries as raw materials of plant origin, such as food, textile, pharmaceutical, fuel and others.

Crop production is a branch of agriculture, which includes the cultivation of crops in field cultivation, vegetable growing, fruit growing, etc. This industry gives necessary food. Consumer goods manufacturing and food industries gets raw materials. Livestock industry, in turn, uses by-products such as straw, silage, and food industry waste.



Agricultural enterprises have a powerful production potential, despite the difficult conditions of production, caused by high prices for production resources, low attractiveness of rural areas, and difficulties in obtaining loans.

This is mainly explained by the fact that domestic producers produce environmentally friendly products, while the production of products uses a minimum number of preservatives. These circumstances create a demand for agricultural products. Moreover, now the demand for farm agricultural products, as products produced in natural conditions, is growing.

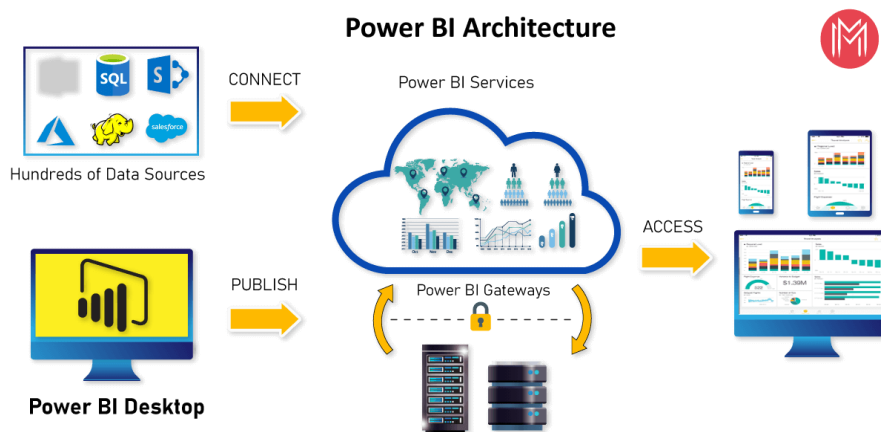
Thus, the transition to sustainable economic growth and further improvement of the organization of crop production is impossible without promoting the use of science, technology and innovations. For an individual choice of the necessary implementations, an in-depth study of the actual processes of production of the product, its nature, orientation and dynamics, is necessary.

This analysis helps you understand the overall crop production State/UT wise in several seasons, average annual growth of major crops, year wise damage crop, import-export of crop and pattern of land utilization; and this analysis helps you to take future business decision.

Scope:

Architecture Design Document (ADD) is an architecture design process that follows a step-by-step refinement process. This process can be used for designing data structures, required software architecture, source code and ultimately, performance algorithms. Overall, the design principles may be defined during requirement analysis and then refined during architectural design work.

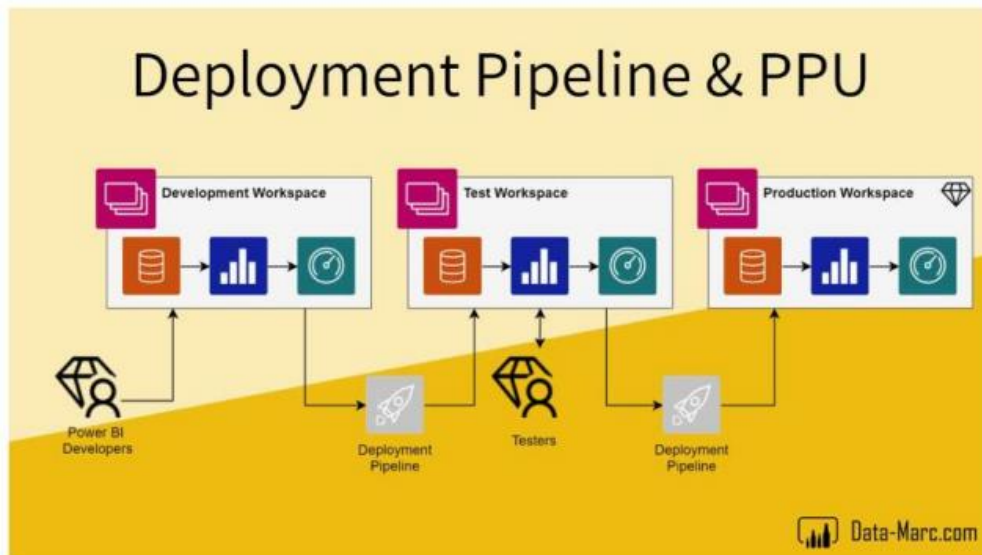
Architecture:



- **Power Query:** Power Query is the data transformation and mesh up the engine. It enables you to discover, connect, combine, and refine data sources to meet your analysis need. It can be downloaded as an add-in for Excel or can be used as part of the Power BI Desktop.
- **Power Pivot:** Power Pivot is a data modelling technique that lets you create data models, establish relationships and create calculations. It uses Data Analysis Expression (DAX) language to model simple and complex data.
- **Power View:** Power View is a technology that is available in Excel, SharePoint, SQL Server and Power BI. It lets you create interactive charts, graphs, maps, and other visuals that bring your data to life. It can connect to data sources and filter data for each data visualization element or the entire report.
- **Power Map:** Microsoft's Power Map for Excel and Power BI is a 3D data visualization tool that lets you map your data and plot more than a million rows of data visually on Bing maps in 3D format from Excel table or Data Model in Excel. Power Map works with Bing maps to get the best visualization based on latitude, longitude, or country, state, city, and street address information.
- **Power BI Desktop:** Power BI Desktop is a development tool for Power Query, Power Pivot, and Power View. With Power BI Desktop, you have everything under the same situation, and it's easier to develop BI and data analysis experience.
- **Power BI Service:** Power BI Service is the Software as a Service (SaaS) part of Power BI. It is also known as Power BI Online. To access Power BI Service, you need to log in to Power BI service.

- **Power Q&A:** The Q&A feature in Power BI lets you explore your data in your own words. It is the fastest way to get an answer from your data using natural language. An example could be what was the total coal export in a year by a particular country. Once you've built your data model and deployed that into the Power BI website, then you can ask questions and get answers quickly.

Deployment:



- There are multiple ways to deploy the dashboard in Power BI. The simplest way is to publish directly on Power BI Services server from online mode. One can easily publish the work from the desktop and then it will open in browser, then user has to sign in and the work will be published.
- This work can be seen by all the viewers around the world. You can share it via a shareable link.
- Thus, you can deploy the dashboard and reports using Power BI Services.

----- Thank You -----