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Leveraging Management And Scalable E Solutions On Water Resources To Build Sustainable Growth In India.

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Abstract:

The present research is actually aimed of establishing how farmers can also be encouraged to adopt the water resource management measures to be implemented. Farmers’ consumption of saving the water may also represent up to 90% of a nation’s water consumption. By developing and actually implementing an extended version of the well-known strategies, we also consider the farmers’ propensity to actually adopt innovations and even their water footprints. Farmers’ innovativeness and even the water footprints which also exert a significant influence on their adoption intentions. This also contributes of the results. While actually the global supply of available freshwater is actually more than the adequate to meet up all the current and even the foreseeable water demands, its spatial and even the temporal distributions are not. There are many other regions where our freshwater resources are actually inadequate to meet domestic, economic development and even environmental needs. In such set of regions, there is a lack of adequate clean water to actually get up and meet the human drinking water and even the sanitation needs which is indeed a great constraint on human health and even on its productivity and hence on economic development as well as on the maintenance of a clean environment and its healthy ecosystems. Thus, few regional policies currently promote the actual replacement of the obsolete water saving measures which are being provided by the farmers with actual subsidies that may also cover almost 40% of their needed investments in totality. Globalization of trade has wide- ranging implications for the group of consumers, the governments, and even for the environment. While there is even the bulk water which is not commonly traded, except for the relatively limited quantities in bottles, the water is been used to actually produce goods that are being traded across the borders. To analyze the impact of Water resources management on responsible farmers of India.

Keywords: *water saving measures; agricultural growth, constraints, globalization.*

Introduction:

There is an effective management of water resources which is becoming a major priority for multiple countries worldwide. Due to this the ongoing industrialization and even urbanization processes, production sectors are increasing rapidly and are even absorbing the limited water resources, whereas the unplanned and excessive water consumption are leading to the actual depletion of groundwater basins, with are also significant and have negative consequences for the natural habitats and even for ecosystems. Farmers’ consumption of saving the water may also represent up to 90% of a nation’s water consumption. As a consequence, even farmers represent a critical target of water saving and even efficiency enhancement policies are been implemented. Technology can also significantly contribute to the controlling water consumption in the agricultural sector and has also favored the actual development of saving water techniques—from micro-drip to intermittent and even the sprinkling irrigation, to plastic



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sheeting, etc., which could also be particularly termed as an effective in saving the water resources and in freeing them up for other or actual uses made out of it. Such set of techniques may also actually increase and yield the quality and even the quantity whilst saving water. Therefore, many national governments can also currently seek to highlight the actual importance of reducing the water consumption in agriculture and try to motivate farmers these farmers and also try to improve their irrigation techniques by actually providing them with incentives for the actual adoption of water saving measures. It is been notice that, the actual adoption rate will remain regrettably low. This is the actual problem which is particularly relevant in India. In particular, there are group of people who are termed as the largest consumers of groundwater, while there is even the water saving techniques being used and are termed as less efficient than that of other regions in India. Thus, few regional policies currently promote the actual replacement of the obsolete water saving measures which are being provided by the farmers with actual subsidies that may also cover almost 40% of their needed investments in totality.

Vast majority of them are in developing countries. Traditionally, agriculture was the prime occupation and it is contributed are the major national economies' share. As the other industries – mining, communications, transport and other industries have emerged with inventions paving way for commercialization, this sector was also relegated to the second and with the services sector like banking and software emerging in the last five and seven decades the services sector have been occupied the prime share in global economy.

In the Indian context, agriculture is termed as the driving force and the fulcrum for the country's economy. It may also be termed as a global phenomenon that as the growth and development takes the centre stage which is more of contribution and it comes from various services and manufacturing and even agriculture and forestry which gets relegated to the third place. Agricultural products like tea, sugar, rice, tobacco, spices etc. are some examples of it.

The concept of Water Resources Management (WRM) has also been termed as around for several decades. However, its actual meaning in practice has been interpreted quite differently by various other implementing agencies. Water Resources Management is now also advocated at various Government institutions, various forums to combat in increasing water scarcity and even pollution. Methods also includes conservation and its reuse, water harvesting and even waste management

It also focuses on the impact of water resources management on farmer's economy in Bilaspur. It aims at undermining and having a detailed analysis on those factors which affects the farmer's economy, which also includes the Water Resources Management and also the productivity of crops. As Water Resources Management, also plays a very crucial role for irrigation and for proper management and for fully utilization of Water Resources which is necessary for Agriculture.

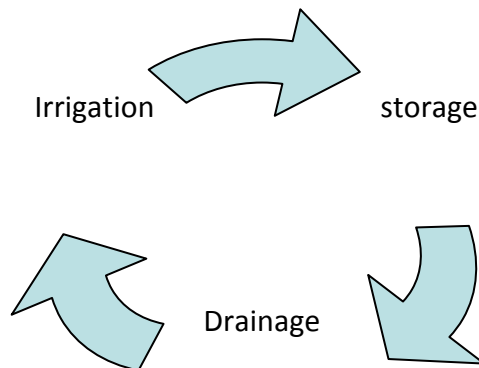
Ministry of Water Resources had been documented that have been the three types of water control had played a major role in established civilization.



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Humans have also practiced the irrigated agriculture which is approximately 5000 years ago. Storing, diverting and even have a control in the water to grow crops that has been the primary motivation for all the humans. People have the first priority for drinking water, domestic water and even for irrigation and it also needs fresh water. There are number of places now even in industrial use which is termed as one of the major priority. It comes either from the surface runoff or from the ground water which is known as "fossil water". It is also termed as one of the important sources. The actual pattern of water withdrawal is over the past 30 years which shows the dramatic increase in the ground water withdrawal. (MOWRD, 2014). Even timeline of human water use is the actual term used. Human also travel and settle near river bank which is almost 12,000 years ago. Due to the shortage of water, humans also invent irrigation almost 7,000 years ago. After World War 2, water also needs a rise for industrial use and it had defined various problems around "Water Resources". The increase in demand caused, due to rapid increase in population. Increase use of water and wastage which leads to pollution and contamination of water that ultimately results in decrease supply of water. To protect water as resource since, 1972 clean water Act which was passed to recognize various needs of growing population.

Globalization

Globalization is increasing and is motivating the actual implementation of new set of rules and procedures made for the international trade of goods and services, which are reflecting in the increasing influence of the multinational firms which are being engaged indirectly in surplus of water use and in its transfers made. This globalization of trade has wide- ranging implications for the group of consumers, the governments, and even for the environment. While there is even the bulk water which is not commonly traded, except for the relatively limited quantities in bottles, the water is been used to actually produce goods that are being traded across the borders. The impact of globalization on water is affecting the farmers to a great extent as it is upgrading and even degrading the actual use of the resources.

Process to adapt the change:

There is a definite need for the actual adaptation to the climate change in India. An eight- step procedure has been in use for the critical infrastructure and climate change evaluation faced.: Identify current and future climate hazards, Conduct risk assessment inventory of infrastructure and assets, Characterize risk of climate change on infrastructure, Develop initial adaptation strategies ,Identify opportunities for coordination, Link strategies to capital and rehabilitation cycles ,Prepare and implement adaptation plans, Monitor and reassess.

Review Literature:



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According to Surya M, Kumar R.K.C (2015) for understanding the actual behavior of complex system, System Dynamics (SD) is termed as an important approach. to understand the behavior of complex systems over time and SD is also been introduced by Professor Jay Forrester in the 1960s. SD has been successfully applied to study demographics, economic growth, business development, water and natural resources management, and environmental systems.

According to Singh C.B, Singh R.K (2011), the actual prospect is made of agricultural production in 2005-2006 which are considered and are termed to be bright verses normal rainfall. The delayed monsoon and it is somewhat uneven in distribution which had some limited adverse impact on the different crops Kharif crops (sown in June –July) and grown under un-irrigated conditions. Coarse grains, pulses, oil seeds, cotton and plantation were all affected the most .Hence delayed monsoon also affects the crop production and proper management of the water by farmers needed.

According to Ragab et al. (2002), “Water resource development and management plays a major concerns in water for agriculture. It also affects on food security, its livelihoods and environment. Due to high population growth and climate change, even water resource is under high threat which actually needs proper planning, development and management. There is major role in all three. The main functions of irrigation management are: Water Acquisition, Water Allocation, System Maintenance , Resource Mobilization, Conflict Management.

Objectives:

1. To analyze the impact of Water resources management on responsible farmers of India.
2. To observe the availability of water resources in India.
3. To study the potential of agricultural land in India.
4. To analyze the problems of existing agricultural system in India.
5. To study the effectiveness of present irrigation system in India.

Hypothesis

H1: Water resource management has a good impact on the economic growth of farmers in India.

Research Methodology:

Research Methodology is a way to systematically solve the research problem. The process used to collect information and data for the purpose of making business decisions. Research in this paper is done mainly using various management books and websites. For this study, the main focus is on the secondary data and not on the primary data. Primary data is not having that much consideration.

In the qualitative information gathered reflects the impression of persons being contemplated in structure of "words" for individual translation, and is gathered all through the study through unstructured questions and perceptions in setting regular to individual being concentrated on with no control of the earth. Qualitative examination alludes to inductive, comprehensive, emic, subjective and process- arranged routines used to comprehend, decipher, depict and create a hypothesis on a phenomena or setting. It is an efficient, subjective methodology used to portray backgrounds and provide them significance (Berg 2007).

Qualitativ examination is for the most part connected with words, dialect and encounters instead of estimations, facts and numerical figures. Qualitative information gathering routines are adaptable and unstructured, catching verbatim reports or perceptible attributes and yielding information that normally do not take numerical structure. Words, movies, postcards, craftsmanship and all tactile information are viewed as qualitative information unless they are changed into some numerical framework (Thomas 2003).

Data Collection



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The task of data collection begins after design plan caked out the collection of data is done to support our finding and interest the result whether the result you have found in according to the hypothesis or not the data can be collected by various methods these are broadly classified into two ways as follows:

Primary Data: Here the researcher has used observation method, interview method, questionnaire and schedules in the current study.

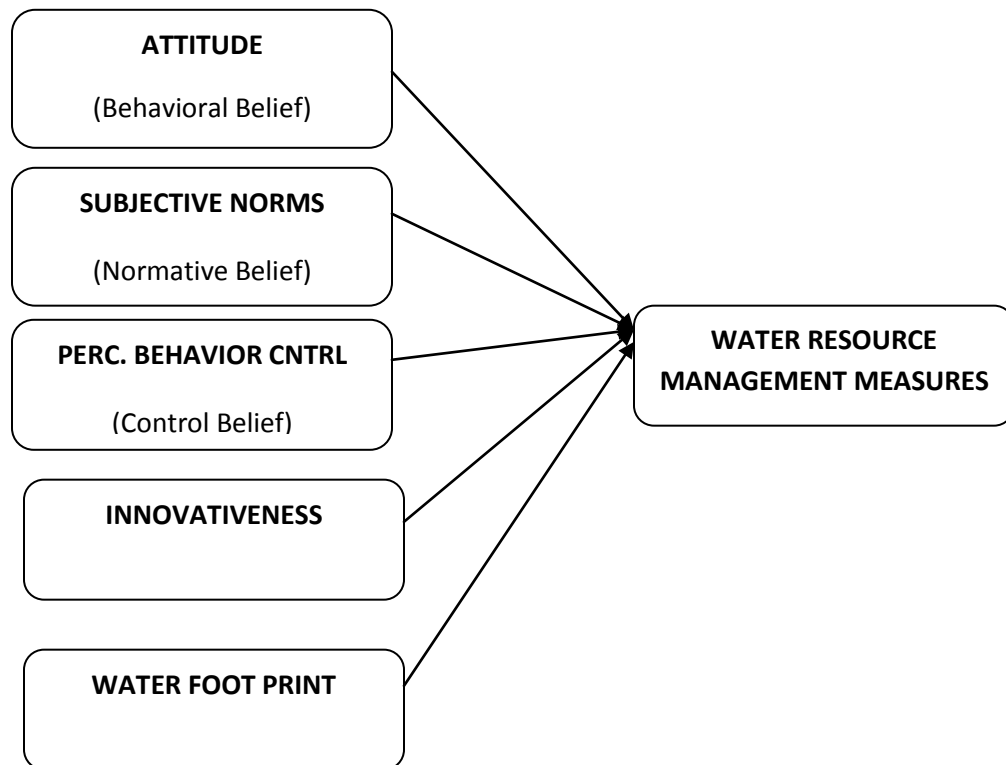
Secondary Data: The secondary data has been collected from Internet, Magazines & News Paper, Government Publication.

Sampling Technique- Simple Random Sampling techniques.

Research Design of the study-Here the researcher selected 500 farmers belonging to the 7 Blocks of the Bilaspur District .Out of the total samples 50 farmers selected from where water resources are available , sufficient for irrigation and there is proper water resources management and 50 farmers are selected from where there is lack of water resources and improper management of water resources. Due to the management of water effects the crop production and farmers economy too.

Population of the study-Here the researcher has taken in to consideration that all the tehsils of Bilaspur of Chhattisgarh state. And belongings farmers were the population of the study.

Research model.





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Data Analysis and Interpretation:

Sample:

The main study was actually carried out on a random sample of farms by operating in India through an on-line survey made. Farmers' actual contacted the information which was drawn from the AIDA database, which also provides account data, even economic indicators, trade description, and even general information of one million farms which are being operated in India. The owners or, the alternatively, people are also responsible for the technical decisions made of the selected farms which are being received via e-mail a formal invitation is made to participate in a survey study also by completing an online questionnaire on water consumption made in agriculture. Farmers operating in the forestry sector were not considered as their target population. Out of about 1000 potential participants, approx. 175 completed the questionnaire in full as a whole. Such a low response rate (17%) is in line with previous literature. Extant research has also indeed ascertained that farmers are generally unwilling to actually spend their time by completing the surveys and sharing the data and/or information on themselves and their activities. The majority of the farms were actually medium-sized, with up to ten employees (76%) and an annual income lower than 60,000 Euro (64%). Besides cultivating, half of the sample which is marketed agrifood products, and 46% of the sample is processed them.

Conclusion:

Piecemeal reactions and its responses to undesirable to actually disrupt in the life support systems which are not enough in today's world where even the humans can actually not control the environment of our planet. Providing the healthy and meaningful livelihoods for all of humanity it is the major challenge in this century. It is going to actually require all of us as a society to actually identify, through research made, to develop, through engineering and science, and even to implement, through governance, the technological, economic, political, and social measures that will all be set a course towards the achievement of a desirable and more which is sustainable and secure future. Research will always be actually needed to identify and also to evaluate the major impacts of the alternative paths which is made towards the growth of the future, and even the tradeoffs that will be inevitable and is being given with the multiple, and not is always as compatible, and has a set of dreams or goals. But clearly translating the research results made in the actual ways that make them and the policy which is relevant and is also needed. Researchers from many disciplines will work together in the future. The fundamental issue which is being faced by everyone is how to reconcile their desires for all of us on this globe and have a good life with the constraints which is imposed by the availability of a renewable, but is limited to an extent, water resource. Proper water resources management and it is efficiently a utilization of the available water resources is very important for the production of rice and it also creates an impact on farmers' economy. Thus, this study also focuses on proper development of water resources management for the greater crop production which also impacts on the farmers' economy and is termed beneficial for the state as well. To study the potential of agricultural land in India. To study in detail about the effectiveness of present irrigation system in India. Water resource management has a good impact on the economic growth of farmers in India. The process used to collect information and data for the purpose of making business decisions. Research in this paper is done mainly using various management books and websites. The task of data collection begins after design plan caked out the collection of data is done to support our finding and interest the result whether the result you have found in according to the hypothesis or not the data can be collected by various methods Sampling Technique used here is Simple Random Sampling technique. Farmers' actual contacted the information which was drawn from the AIDA database, which also provides account data, even economic indicators, trade description, and even general information of one million farms which are being operated in India. The majority of the farms were actually medium-sized,



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with up to ten employees (76%) and an annual income lower than 60,000 Euro (64%). Besides cultivating, half of the sample which is marketed agrifood products, and 46% of the sample is processed them. Proper water resources management and it is efficiently a utilization of the available water resources is very important for the production of rice and it also creates an impact on farmers' economy. Thus, this study also focuses on proper development of water resources management for the greater crop production which also impacts on the farmers' economy and is termed beneficial for the state as well. Providing the healthy and meaningful livelihoods for all of humanity it is the major challenge in this century.

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