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Problems And Prospects Of Sustainable Agriculture Development In Ekangarsarai Block, Nalanda District, Bihar

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INTRODUCTION :- Bihar is an agricultural based state and agriculture is the backbone of the state's economy. In real, in this state agriculture is not only a economic activity but also a lifestyle too. Various religions, caste and communities had a similar uniformity in their day to day activities and there needs. This kind of cultural concept in agragrian society is the result of their decades experiences. The contribution of agricultural sector in the station income is around 40% and at together 80% of the total population is associated with agriculture and related sector. In current situation to feed the growing population the emphasis or stress is being laid on infensive agriculture. To get the maximum output the emphasis is not only being laid down on area extension but also on per unit higher yield. For this bybrid seeds, chemical fertilizers, pesticides extension of irrigation facilities and other impetus are being inserted. Use of these impetus are creating environmental degradation and other related problems like by using pesticide there are other ancillary problems too creating havoc. Fertile lands are in general being affected by solinity, acidicity, alkanlicity and wather logging. For getting rid of these above problems the concept of sustainable agriculture development are going to be developed.

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Sustainable agriculture is a paradigm of the agriculture which shows a established management towards ecological sustainability. This is the only reason that sustainable agriculture is being kept in mind of micro- level. In this research paper we are putting a glimpse of light on "Sustainable agriculture Development : Problems and Prospects" in agriculture sector of Ekangarsarai block in Nalanda district.

OBJECTIVES :-

(i) Inclusion of nutrient cycle and nitrogen fixations in agricultural production by understanding the ecological system.

(ii) To reduce the cost of output by using lesser non-renewable investments and rest of the resources is being used on its merits.

(iii) To increase the independency among farmers and villagers.

(iv) To bring changes in crop-pattern and production capacity by keeping the climatic fringes in their current production rate for a long time.

(v) To conserve soil, water, energy and biological resources for profitable production.

METHODOLOGY :- To bring any research work to the conclusive result is to use the scientific methodology. The prepared report includes the collection of primary and secondary datas, their simplification and their analysis. To get the information regarding research area we had taken formal and open inferviews from block office's officials and agriculture development officer Apart from this centralized group discussion were also held.

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HYPOTHESIS :- Agriculture is the backbone of Indian economy. Agriculture practices are the ancestral livelihood of the masses. In current situation when there is minimal possibilities of area extension the emphasis are being laid down on intensive production on per unit of load. To increase the productivity from per unit of land hybrid seeds, chemical fertilizers, pesticides, extension of irrigation facilities and other impetus were used extensively. By this kind of extensive use there are many side-effects are being born, like-loss of fertility, increase in salinity and alkancity, water logging, chemical spread, which are polluting the surface water plants and food grains. From above mentioned the man is now thinking of sustainable agriculture development, which is need of the time.

STUDY AREA - The given study area is of Ekangarsarai block of Nalanda district in Bihar. This area is situated between $25^0$13' N. to $25^0$16'15" N. and $85^0$15'E and 85°20'E. The total area of this block is 32815.40 acre and the population is

1,45,479. Total panchyat in this block are 18. Its headquarter is itself in Ekangarsarai and the district headquarter is in Biharshariff. From commissonerate it is located in Panta. Mean sea level of this area is 62 metre. The boundary of this block is surrounded by Hilsa in north, Islampur in South, Parvalpur in east, Jehanabad district in west. N.H. 110 and SH-4 is the main artery road of this block. Languages of this area is Magahi and hindi. By rail it is connected to Fatuha Islampur rail route. The climate of Ekangarsarai is Monsoonal. It had three phase. In this study area all three types of crops Khariff, Rabi and Zaiad are cultivated. 80% of the total population are dependant on agriculture. From this kind the agriculture is the main occupation of this area.

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Problems in Sustainable agriculture :- Agriculture of this area is still underdeveloped and traditional. It is still low-yielded and due to this it became the cause of farmers poverty. Capital investment too are low and rate of innovation in this sector too is decimal. Following are the main problems which hampers the agriculture development in this area.

(1)UNECONOMIC LAND-HOLDING :- In this area the agriculture holdings are so small that they are economically not so much behefitable. Higher growth rate of population and "succession law" became the major reason of land fragmentation. That is the reason that in 2001 only 0.12 acre was the availability of the land on per head from this the small

holdings became uneconomic and the larger investment became unviable the net income too are small which became unsustainable for their livelihood.

(2) POVERTY OF FARMERS : - Most of the population in this black are rural, from this 23.2% of total rural population is under poverty line. Due to this povertyness of the farmers they are getting trapped by local money lenders. These money are being raised on higher interest rates. These type of deaver capital escalate the cost of farming, and in the result its products became unvaiable from commercial point of view.

(3) LESSER INVESTMENT IN AGRICULTURE : - By advertisement from various means of communication the concerned agencies for the welfare of agriculture sector are showing that they are committed to increase the investment ration in this sector, But in reality only in the period of green revolution the spending- rations on infrastructure were raised but in subsequent time this ration too

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get diminished. Private investment have shown slight increase in the form of smaller equipment but that in matter of overall it is also getting diminishing return. The government exchequer current position has a negative note. Overall private investment ratio are getting a bigger chunk.

(4) EXPLOITATION OF FARMERS : - In inital phase of agriculture this block- area gets impetus from public sector especially in irrigation, surface- water flow, flood control,

consolidation of Holdings, soil erosion and alkancity control, research and spread of services, rural electrification and instutional financial facilities. Change in technological advancement can not be substitute of instutional changes. Co-ordination both this properties would let a better way of distribution and development of this area. This is why the mariginal farmers are still on margin or the verge of bankruptcy.

(5) LACK OF PROPER INFRASTRUCTURE :- For the development of agriculture the network of transportation, communication, banking, electricity, storage and distribution etc. are too be developed. Unfortunately in Ekangarsarai block, these all forms of facilities are still are not being developed.

(6) LOW PRODUCTIVITY :- Till date the productivity of crops are still too low.

(7) Lack of Research, training and education :- In this area agricultural research and training programmes are not upto mark. Farmers are still untrained and illiterate. Agriculture related innovations should be reached to the field level.

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(8) UNBALANCED GROWTH :- Most of the production are limited to food grain sector and that too for some of the panahyat. Rest of the Panchyati are still undeveloped.

Prospects of sustainability in agriculture development in the area.

Following are the Prospects in this study area for sustainable agriculture development.

(1) Comprehensive Water Management :- Water is the basic element of this sector. For this, this area requires -

(i) Flood Control Measure

(ii) Development of drainage System.

(iii) Ban on Uninterrupted explotation of ground- Water.

(iv) Extension of irrigation facilities.

(2) Farming Practices according to ecological condition :-This study area consists of different conditions in its various parts especially in land forms and its gradient, soil flow, vegetation etc. For this crop combination and agriculture pattern should be practiced accordingly.

(3) Development and extension of agro-forestry - For extraction of more profitability this shade of agriculture agro-forestry can be implemented.

(4) Use of bio- fertilizers :- Compost, Green Fertilizer, Blue-green Manure, Vermi- Compost can too be added for better croppius output. By Using this type of manure micro-Nutrients needs of soil can also be fulfilled. Apart from this agricultural wastes too can be used.

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(5) Inclusive pest management :- By Practicing many kind of chemicals there is a report that many friendly bacterion are killed and the yield are too effected. This could be only
checked that the pest control only too be within limitations. So that the other problems can not be arised, while dealing with the first problem.

(6) Growth and development of basic infrastructure :- For this qualitative development of irrigation facilities, roads development, storage facilities, rural electrification and other amenities should be placed in strong position. For development of sustainable agriculture a well co-ordinated marketing establishment too required. For this agriculture co-operatives could be given impetus. Ancillaries industries of food processing and wastage (agriculture) uses should be developed.

FINDINGS :- In this study area vast area of land became unsustainable due to overall exploitation of land by extensive land use and underground water resources. Situation of water table in this area is very much alarming. Due to over irrigation soil-alkancity is another problem Higher use of chemicals expecially pesticides, harmoual chemicals, fertilizers are emitting higher rate of production in some fields, but in long term they are creating a vast stretch of land barrers. In next term, some farmers are taking the land on lease and than after they were using this malicious natural disaster by polluting and degrading the land and water quality.

CONCLUSION :- So, now it is the time for whole of the human community to rethinle of their approach that how they can tackle this endless question of sustainability. By not considering and

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putting any parametre of the use of innovation could be disastorous. The economy of rural area is in a vicious circle, which can be put on hold only by strong will and effort. Using of ecofriendly and realization of social-respouriblity can bring a compensatory mode of sustainability. Immediate short- term profit is not going to be fruitful for very long time So, thinking of sustainability can be suplemented by the long term goal, As our future generations have to borne all these implications.

Key Words :- sustainable, industrilisation, Hurdles, Povertiness, transportation.

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