Smart villages through information technology

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ABSTRACT :

Human society is developing with rapid momentum and achieved various successes for making its livelihoodbetter.The civilization is witness for various changes relatedto it's the development through different catalysts like industrial development,green revaluation, science and technology etc.Thepresent era is augmented on information and communication technology.The driving motivation behind the concept on "smart village"is that technology should acts as a catalyst for development,enabling educational and local business opportunities, improving health and welfare, enhancing democratic engagement and overall enhancement of rural village dwellers. The "smart village" concept aims to realize its goal trough providing policymakers with insightful, bottom –p analyses of the challenges of village development. Specifically,the study intended to address the major issues faced by the community farmers, identify the smart village indicators and put forward a strategic plan for the smart village implementation.Smart communities and smart villages or being developed world wide. Smart communities are defined as a community with a vision of the future that involves the application of information and communication technology in a new and innovative way to empower its, resident institution and reasons as a whole. A smart village is a concept which refers to a set, series or even a bundle of services being delivery to a group of resident inheriting that particular rural area and business effective and efficiently. The concept of smart city or village has become a global phenomenon that exists all over the world.

KEYWORD:Green revolution, social empowerment, smart village ecosystem, industrial development.

What is the Smart Villages initiative?

In Smart villages access to sustainable energy services acts as a catalyst for development – enabling the provision of good education and healthcare, access to clean water, sanitation and nutrition, the growth of productive enterprises to

boost incomes, and enhanced security, gender equality and democratic engagement.

The Challenge :

Unfortunately it is a fact that, in the world today, 1.3 billion people remain without access to electricity. In addition, 3 billion are still cooking on dangerous and inefficient stoves. Many of them live in remote rural village communities. Until such communities have access to modern energy services, little progress can be made to develop their economies and improve their lives.

The Smart Villages Programme :

In each of the six regions a major international workshop brings together the diverse set of players from across the region, providing an open and stimulating environment conducive to generating new insights into how to tackle the challenges of village energy access for development. Follow-up activities include briefing meetings for policy makers, innovation competitions to generate new ideas, training courses and further workshops. A final event in each region draws together lessons learned in conjunction with policy makers, donors and development agencies, and considers next steps. Crosscutting activities are developing supporting

materials and ensuring that lessons are learned, and connections made, across the regions.

PM Modi brings Smart Villages to India :

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In his maiden Independence Day speech, Prime Minister Modi took the opportunity to announce the SaansadAdarsh Gram Yojana (Parliamentarian's Model Village Scheme). Since coming into office, India's Prime Minister NarendraModi has wasted no time in pushing through reforms to modernize India's economy. His speech stressed the importance of undertaking similar efforts in rural India. Under the new scheme, each Parliamentarian is mandated to adopt three rural villages and ensure that these villages are transformed into 'Smart Villages' by 2019.

A detailed blueprint of the programme published by the Rural Development Ministry presents a holistic vision of development in which model villages are connected to the internet and where all households have access to clean water, sanitation and low-carbon energy. Plans suggest that each Parliamentarian will consult with villagers to ascertain where the village's particular economic strengths are and what skills and investment are required to build on these strengths. Furthermore, model villages will be backed up by the provision of basic amenities that

are often only available in urban areas, and a social security system.

The vision is for villages to retain their unique cultural and ecological heritage, empower villagers and thrive along all dimensions of development. There is tremendous synergy between Prime Minister Modi's 'Smart Village' vision and the E4SV Team's very own concept of a 'Smart Village'. We also hold that modern energy access can catalyze development and enables villagers to lead healthy and fulfilling lives, achieve their development potential, earn a decent living and stay connected to the wider world.

With the E4SV team preparing for a year of engagement with stakeholders in India and South Asia more broadly, Prime Minister Modi's initiative is especially encouraging. This new drive will provide more opportunities to report on exciting developments, undertake fruitful collaboration with our Indian partners and disseminate impactful findings that can benefit off-grid communities far beyond India.

Green Revolution in India :

Green Revolution in India was a period when agriculture in India increased its yields due to improved agronomic technology. It allowed developing countries, like India, to overcome chronic food defects. The "revolution" began in the 1960s, but it's confirmed that it began in 1953

(actually in 1950 with men like McIlroy,Kaven, AKSmith Jr. in Uttar Pradesh) through the introduction of high-yield crop varieties and application of modern agricultural techniques. It led to an increase in food production in India, especially in Punjab, Haryana and Uttar Pradesh during the early phase. The main development was higher-yielding varieties of wheat, which were developed by many scientists, including American agronomist Dr. Norman Borlaug, Indian geneticist M. S. Swaminathan, and others. The Indian Agricultural Research Institute also claims credit for enabling the Green Revolution, in part by developing rust resistant strains of wheat.

The introduction of high-yielding varieties of seeds (hybrid seeds) and the increased use of chemical fertilizers and irrigation led to the increase in production needed to make the country self-sufficient in food grains, thus improving agriculture in India. The methods adopted included the use of high-yielding varieties (HYVs) of seeds with modern farming methods.The production of wheat has produced the best results in fueling self-sufficiency of India. Along with high-yielding seeds and irrigation facilities, the enthusiasm of farmers mobilised the idea of agricultural revolution. Due to the rise in use of chemical pesticides and fertilizers there were negative effects on the soil and the land such as land degradation.

Empowerment:

Empowerment refers to measures designed to increase the degree of autonomy and self-determination in people and in communities in order to enable them to represent their interests in a responsible and self-determined way, acting on their own authority. Empowerment refers both to the process of self-empowerment and to professional support of people, which enables them to overcome their sense of powerlessness and lack of influence, and to recognise and eventually to use their resources and chances.

The term empowerment is also used for an accomplished state of self-responsibility and self-determination.The term empowerment originates from American community psychology and is associated with the social scientist Julian Rappaport (1981).In social work, empowerment forms a practical approach of resource-oriented intervention. In the field of citizenship education and democratic education, empowerment is seen as a tool to increase the responsibility of the citizen. Empowerment is a key concept in the discourse on promoting civic engagement. Empowerment as a concept, which is characterized by a move away from a deficit-oriented towards a more strength-oriented perception, can increasingly be found in management concepts, as well as in the areas of continuing education and self-help.

Smart village focuses on:

- Health.
- Education.
- Energy.
- Environment.
- Public safety.
- Entrepreneurship.
- Public services.
- Sustainability People.

- **Health :**

As defined by World Health Organization (WHO), it is a "State of complete physical, mental, and social well being, and not merely the absence of disease or infirmity." Health is a dynamic condition resulting from a body's constant adjustment and adaptation in response to stresses and changes in the environment for maintaining an inner equilibrium called homeostasis.

- **Education :**

The wealth of knowledge acquired by an individual after studying particular subject matters or experiencing life lessons that provide an understanding of something. Education requires instruction of some sort from an individual or composed literature. The most common forms of education result from years of schooling that incorporates studies of a variety of subjects.

- **Energy :**

Measure of the ability of a body or system to do work or produce a change expressed usually in joules or kilowatt hours (kWh). No activity is possible without energy and its total amount in the universe is fixed. In other words, it cannot be created or destroyed but can only be changed from one type to another. The two basic types of energy are:

(1) Potential: energy associated with the nature, position, or state (such as chemical energy, electrical energy, nuclear energy).

(2) Kinetic: energy associated with motion (such as a moving car or a spinning wheel).

- **Environment :**

The sum total of all surroundings of a living organism, including natural forces and other living things, which provide conditions for development and growth as well as of danger and damage. See also environment factors.

- **Public safety :**

A department which has the primarygoal of protecting the public and keeping them safe.Countries can have a public safety department as part of the government, as can states or even local governments. Colleges and other large organizations can also have public safety divisions. In many cases, a public safety division is comprised of individuals from many other organizations, including police, EMS, and public transportationofficials.

- **Entrepreneurship :**

The capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit. The most obvious example of entrepreneurship is the starting of new businesses.In economics, entrepreneurship combined with land, labor, natural resources and capital can produce profit. Entrepreneurial spirit is characterized by innovation and risk-taking, and is an essential part of a nation'sability to succeed in an ever changing and increasingly competitiveglobalmarketplace.

- **Public services :**

1. Service provided or supported by a government or its agencies.

2. Agency involved in providing public service for or on behalf of a government.

- **Sustainability People :**
  1. General:
  (1) Ability to corroborate or substantiate a statement.
  (2) Ability to maintain or support an activity or process over the long term.

2.Economics: Continued development or growth, without significantdeterioration of the environment and depletion of natural resources on which human well-being depends. This definition measuresincome as flow of goods and services that an economy can generate indefinitely without reducing its natural productive capacity. See also sustainable development.

Industrial Development in India:

A large number of industries have been established in the post-independence India in private, public and joint sectors. There are a lot of industrial resources and raw materials available in India. Bhilai, Bokaro, Rourkela, Ranchi, Jamshedpur, Renukoot, etc., emerged as major centers' during the first one and a half decades of independence.However, later on, industrialization at medium and small scale was taken up in all the states. The main sectors of indus-trialisation today are electronics, transport and telecommunication. Compared to advanced countries, there is very little industrialis-ation in India. About 10 per cent of the total workers are employed in the organised industrial sector. Both private and public sectors have grown side by side since independence.

In 1948, it was decided to reserve right of control with the state over coal, steel, aviation, petroleum industries, etc. All other industries were open to private enterprises. In 1956, a resolution was passed under which private capital was allowed to enter into the reserved sectors of industry. A number of top-ranking industrialists were members of the Central Advisory Council and Development Council.The state enterprises and public sector undertakings ran into heavy losses, and this put a question mark on the capabilities of the Indian State and its approaches in managing its own establishment. A debate started on private-public sector partnership and divide. The debated tilted in favour of the private sector.Many of the government enterprises were handed over to private entrepreneurs and industrialists. Privatisation has entered in a selected way in offices and transport sector, including roads, railways and airways. 'Contractualism' is the new slogan today.

Large-scale industries started in the first fifteen years of planning in India. Rate of industrial growth was fluctuating between 2 to 12 per cent. However, we have observed a steady industrial progress after 1967. The enduring factors which have contributed to the growth are vast natural resources, economic surplus, large labour force, high urban concentration, concentration of surplus within a small social group, availability of trained personnel, a stable political structure, powerful means of state economic control, etc. Currently, the growth rate is around 8 per cent. Today, India is one of the top developing countries compared to the countries of Africa and South America.

However, production of luxury goods, control of monopolies, sluggish rate of agricultural development, etc., have come as obstacles in industrial development. Despite these factors, investments in private sector have been increasing.Collaborations with industrially advanced countries like the USA, UK, Russia, France, Germany, Italy, Japan, etc., are a clear testimony of India's industrial progress. A boost has been given to the development of small-scale industries too during various plans. India has today a global market. India and China are considered as the fast developing countries.

Conclusion:

As India is made-up with villages it is every individual responsibility to make nation to move in all ways making smart communities and smart villages (or) being developed world wide. Making green revolution is very essential to improve our villages. Information technology must be used in every sector.Every individual must take challenges to improve their villages.

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