



AN INTEGRATED RESEARCH APPROACH: A TOOL FOR SUSTAINABLE RURAL DEVELOPMENT

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Abstract

It is obvious that various interventions and studies that has been made towards rural development had most times been one legged and lacked the richness and robustness needed to engineer true and sustainable development within the grassroot. Hence this study advocates the importance and necessity of an integrated research approach as the tool for a sustainable rural development in Agriculture, Environment and Health of the people within the rural areas. Several approaches had been developed and used on the field in tackling the challenges facing rural areas in her quest for sustainable and comprehensive development a number of which includes; rural resilience, analytic hierarchy process, neo-endogenous development approach and integrated research approach. Integrated Research Approach emphasizes on civil right to influence the method and outcomes; it includes consideration of multiple perspectives and diverse sorts of inputs and outputs; it helps us engage each other in a way that the results of joint work is greater than the sum of individual efforts. This study concludes that Integrated

Research Approach is professional and stakeholder dependent, it will make the result robust and also helping in breaking down barriers that exist among disciplines/ practices that had always served as constraints in our understanding of the multi-dimensional nature of rurality and rural development interventions.

Keywords: Interventions, Integrated Research Approach, Project, Rural Development, Sustainability

INTRODUCTION

In rural areas, people live further away from the city and their economic sustenance/ support system tend to be much more closely tied to the natural environment than the livelihoods of city people, so the definition of rural is derived from sense of belonging, FAO, (2018). This rural area vision is holistic and includes the economic, social and environmental aspects of life in these places. The concept of countryside is multidimensional and what people perceive as a rural area is ultimately a subjective decision that depends on social and cultural contexts as well as settlement patterns and landscapes, as such a definition cannot be considered more or less appropriate for the intended use, FAO, (2018).

The findings by Li et al., (2019), show that the interaction between rural areas and the external environment is what causes rural communities to develop, decline or disappear, and thus emphasizing the need to improve the resilience of rural communities by adjusting the function and structure of their internal components to survive external changes.

Du and Mestry, (2019), argue that poverty is endemic in many African countries and that rural schools face particularly serious challenges from their environment, possibly due to many resources in the school structure and the external environment, including the local community and educational authorities. Some obstacles to effectively meeting the educational needs of rural areas include insufficient state budget, inadequate teachers, absence of and/ or inadequate interest of parents in their children's education, etc.

Wakerman and Humphreys (2019), in their study, suggests the need for a network of integrated rural training paths for non-medical health professions, as well as a concrete and effective retention strategy, elastic and bundled; the varieties and differences of rural and remote area needs should be considered and mirrored in an agreed set or package of basic services that are locally accessible to all communities and; the sustainability of primary health care services in rural and remote areas supported by adequate funding, among others.

An integrated research approach can be explained as another design approach applied to increase creativity, productivity and the systematic use of effective methodologies for efficient

services. The integrated research approach as a holistic approach is a means and a process of “meshing diverse subjects and fields across time and spatial boundaries and scales”, Clark & Stankey, (2006), in an iterative and adaptive manner. According to Wondolleck and Yaffe (2000), integrative work represents efforts that transcend geographical, temporal, functional and different elements of a problem.

As a means to an end, an integrated research approach helps us understand complexity; facilitate and provide insight into issues, issues, questions and goals; it emphasizes equal opportunities to influence processes and outcomes; it involves considering many different aspects and types of inputs and outputs. As a human process, it brings us together in such a way that the results of our collective work outweigh the sum of our individual efforts. Since the integrated research approach is iterative and adaptive, it relies on knowledge from a variety of sources, from research to management experience that takes into account a variety of resource issues, their effects on research management decisions and their impact on larger systems.

Another definition given by Estabrooks, et al. (2019) indicates that it is the integration of systems of practice and research to develop and implement solutions to local priorities by advancing the dissemination and the science of implementation. The integrated research approach focuses on the problem in question and not the functional disciplines of the participants. Rural development initiatives and actions are expected to promote the economic and social developments of rural communities. With respect to history, rural development programs have been controlled and instituted from the top level of local or regional governments, regional development agencies, NGOs, national governments or international development organizations. Indigenous and local people can also be carriers of endogenous development initiatives. Rural development seeks to enhance the value and quality of rural life of rural people themselves through their experience of improvements of rural life in order to meet the needs of rural communities. Foreigners may not understand the surroundings, language and culture that are common in the area thus; it is the rural people who must participate in their own sustainable rural development process.

Rural development is the process of improving the quality of life and economic wellbeing of people living in rural areas with relatively remote, scattered and few populated areas. Traditionally, rural development had relied on the abuse and milking of land-intensive natural resources like agriculture and forestry, but increasing rates of urbanization and changes in global production networks has altered the nature and basic characteristics of rural areas. According to Chauhan, et al., (2019), increasingly, tourism, niche and leisure producers have displaced resource extraction and agriculture as the key and primary economic drivers; whereas

education, entrepreneurship, physical and social infrastructure all play significant roles in the development of rural areas.

It is important to understand that rural development is the implementation of capitalism in rural areas and a series of policies and interventions aimed at promoting socio-economic changes and improving people's quality of life in rural communities. Several works on rural development reflects the interactive nature of the relationship existing between rural development as capitalist development and as an intervention. However, it is also important to reiterate that approaches to rural development cannot survive without substantial treatment of the economic, social, environmental, cultural and geographical realities that shape lives of people worldwide. Therefore, it is urgent to find all measures to support rural growth and development through qualitative and quantitative research approaches.

STATEMENT OF THE RESEARCH PROBLEM

Obviously, the various interventions and studies conducted towards rural development are most often one-legged, lacking the richness and robustness needed to design truly sustainable development of the grassroot economy. This is because most studies are conducted independently by experts in a particular discipline and do not consult many times with other expert stakeholders who can provide additional necessary perspectives on the subject. Rural maintenance is now a serious problem, as some problems such as migration, food shortages, labor supply and power generation becomes more endemic and vicious if rural areas are not sustainable. Solving these problems requires a multifaceted integrated research approach; therefore an integrated research approach is needed so as to develop and maintain the rural areas.

In addition, many research and intervention projects conducted in rural areas can be considered as a white elephant project primarily for the purpose of writing a publishable work or as a condition for submission in reputable grant applications. Rural communities intuitively perceive that researchers have no authenticity and passion in solving their fundamental problems beyond career growth and monetary gain and therefore are not getting the necessary buffering system as expected from the host community(ies) hereby making everything done inapplicable and the community unresponsive. This suggests that the integrated research approach should be considered as an ideal alternative to efforts geared towards the development of rural areas.

The objective of the study is to defend the importance and necessity of an integrated research approach as a tool for sustainable rural development.

CONCEPTUAL STUDIES

Several approaches have been developed and used in this area to meet the challenges facing rural areas in the quest for inclusive and sustainable development. Some of them include; rural resilience, analytic hierarchy process and neo-endogenous development approach.

Rural resilience can be defined as the ability of a rural area to adapt to changing external conditions, events and/ or occurrences in order to maintain an adequate standard of living, including the ability to recover from poor management or administration. It can be described as the ability of a rural community to simultaneously balance ecological, economic and cultural ations, Heijman et al., (2019).

The concept of rural resilience applies excellence to areas where economic, ecological and cultural aspects are close fit. Rural resilience is the ability to innovate in a dynamic environment and provide a kind of buffer that protects the system from management crunch or political action.

According to Ikejemba et al., (2016), for a scheme or project to develop successfully, transparency, ownership, and shared responsibility can be achieved via appropriate needs assessment and identification and also community participation. Baffoe and Matsuda (2017a) argue that in rural communities in developing countries, most livelihood projects undertaken are either unprofitable or counterproductive because development officers fail to distinguish priority from viability.

The AHP (Analytical Hierarchy Process) method was put forward by Saaty, (1977; 1980), and as a powerful multi-criteria decision making method, it has been applied to analyze complex and unstructured problems in various decision-making situations. This effective method is generally recognized for its rigor in analyzing the “relative strength of preferences, qualitative judgments, and conflicting opinions of decision makers (Vainiunas et al., 2009)”. It ultimately provides a transparent and rich method for deciding on the best development options and alternatives that are likely to generate maximum social benefits, considering the needs and context of the beneficiaries, Heijman et al., (2019).

Ray (2001) proposed the word neo-endogenous development to represent the locally anchored rural development approach, which is outward-looking and is characterized by dynamic interactions between the local areas and its broader environment. He argues that this approach is characterized by local resources and participation and can be powered from three (3) possible directions, separately or

together. The first is by local actors, the second is from above, because national governments react to the logic of contemporary political and administrative ideology, and the third is by the middle (intermediate) level, especially by NGOs, who see it as a means to pursue their particular agendas. Researches on neo-endogenous development approaches has drawn attention to power struggles that focus on the interactions of indigenous and non-local actors of rural communities in shaping their development potentials, Gkartzios and Lowe, (2019).

In the bid to solve the challenge of rural areas, the following are important agents that must be integrated to achieve rural development; the Government, Ministry of Agriculture, Management Development Institutes such as Agricultural and Rural Management Training Institute (ARMTI), Research / Extension agents and the Rural sector/ areas.

At the federal level, the federal or central government is hinged with the responsibility to grant the ministry the autonomy to make policy. The government establishes the policy framework and gives the approval to the ministry after carefully reviewing and verifying the policy implementation plan. The government can influence the operational policies by intervening in agriculture and rural development directly using its own budget and resources. The Ministry of Agriculture develops policies and sets the stage for the implementation of the plan and also provides technical support.

Agricultural and Rural Management Training Institute's (ARMTI) mission is the improvement of management practices in the agricultural and rural development (ARD) sector through suitable and appropriate management interventions towards poverty reduction. ARMTI has been officially saddled with the responsibility of conducting special studies and research into management needs and problems in ARD; conducting training needs analysis; providing management training as part of interventions for identified needs and problems (including gender and youth related issues); providing consultancy services geared towards the improvement of managerial effectiveness and efficiency in the ARD sector; disseminating agricultural and rural information and; contributing to policy development for effective management in the ARD sector.

Research Extension/ Agents fill up the space of drivers/ agents in the policy implementation. The agents serve as principal contact for the dissemination of the technology or policies needed to help the rural dwellers. The rural area/ sector acts as the receiver or the field of operation where the policy is being implemented.

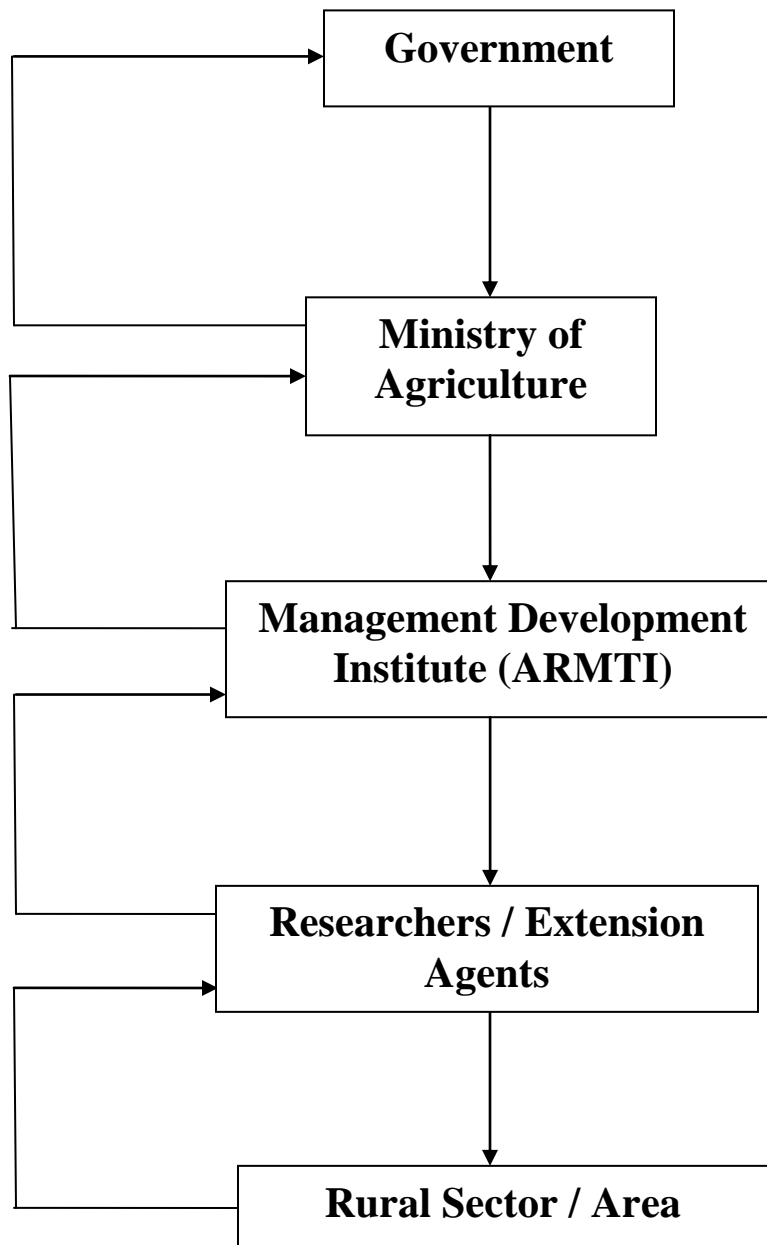


Figure 1 Feedback Spectrum

An integrated research approach will help collapse and make ineffective barriers between disciplines and practices that limit our understanding of how economic, social, environmental and political factors interact, Patel et al., (2020). The integrated research approach as a holistic approach, an all encompassing methodology is a means and a process of connecting different topics and fields across borders. Therefore, it transcends all areas of practice. This article discusses some prominent areas important to rural life.

1. Agriculture: An Integrated Agricultural Research For Development (IAR4D) approach is a novel approach involving multiple actors and partnerships, making use of the knowledge of stakeholders at every stage, creating "a network that takes into account technical, social and institutional constraints, in an environment that facilitates learning. Its ultimate goal is to create solutions with innovative methods rather than simple research products or technologies" (Adekunle, *et al.*, 2013). IAR4D is clearly presented around four principles defined by Hawkins *et al.*, (2009b), which are: it incorporate into a common theme the perspectives, knowledge, and actions of different stakeholders by defining a challenge; it incorporates the learning that stakeholders gain from their collaboration through interactive learning and joint actions; it blends action, analysis and change in different aspects of development to achieve a significant effect in terms of people, poverty and the development of the poor; and it integrates analysis, action and change at different levels of "spatial organization (field, farm and watershed), economic (product, firm, value chain and business cluster) and social (individuals, groups, communities, organizations and innovation systems) by promoting change and improving learning throughout the innovation system, at all levels of the organization".
2. Environment: The Integrated Research on Disaster Risk (IRDR) Program is an interdisciplinary program and the reason for the IRDR program is to fortify the utilization of science and its interface with strategy and practice to address the expanding difficulties presented by natural and human-initiated ecological perils. The mission of this organization is to develop cross-sectoral and multidisciplinary partnerships for comprehensive and ultra practical research on disaster risk reduction and the execution of disaster risk policies and practices based on evidence of efficacy (IRDR 2018). IRDR promotes capacity development worldwide to address risks, hazards or perils and make informed decisions about actions in reducing their impact. The findings of The Assessment of Integrated Research on Disaster Risk (AIRDR) Working Group to date have supported the definition of a longer-term scientific program on the assessment of integrated research on disaster risk for both the research communities and sponsor agencies.
3. Health: Today's health system requires a multidisciplinary approach involving literature review, evidence-based research by integrating conventional research with various health systems such as Ayurveda, Tibetan, Chinese and advanced sciences such as nanotechnology, pharmacology, chronology, reverse pharmacology, appropriate use of information technology, etc. The primary focus of Chronopharmacology is on auto-induction and self-inhibition, which play an important role in drug optimization, as they

address drug action and maintain standard drug delivery in different situations and medical conditions such as asthma and peptic ulcer disease, Malagi and Kamath, (2016). According to Boon, et. al, (2004), "the multidisciplinary and integrated approach brings together qualified people from different disciplines to form a highly articulated interdisciplinary team in conventional medicine and primary, complementary and alternative health care to provide quality patient-centered health care". In the UK, miniature "working units" called Health Integration Teams (HITs) have been developed and established via stakeholder collaboration to create improvements in the health of local people through integrated work", Redwood et al., (2016). The goal is to forge and consolidate on existing partnerships and develop new collaborations and alliances among trustees, primary care and public health professionals, allied health professionals, specialty practitioners, junior scientists and healthcare researchers with an effective and energetic patient and public involvement. It is more appealing locally because it involves a much wider range of stakeholders, rather than favouring specific clinical disciplines.

Problems facing Integrated Research Approach

In many countries, especially developing economies, there are no clear policies and legal frameworks that provide perspective and direction to related issues faced by people in rural areas for promoting sustainable development. In countries with such policies, it can be seen as a weak instrument because "the political will to deploy and dedicate tasks and resources to effective implementation also remains a factor of uncertainty but very important", Quesada, et.al (2018). There is also the problem of the lack of stakeholder engagement that can bring about sustainable development through an integrated research approach while inadequate coordination and cooperation among public institutions may hinder the success of an integrated research approach towards sustainable rural development.

Significance of Integrated Research Approach

An integrated research approach has great potentials to generate engagement and integration. Because it deals with all relevant stakeholders, it ensures common but differentiated responsibility and accountability and also ensures the preservation and protection of rural life and heritage. The feedback spectrum in an integrated research approach enables effective monitoring and evaluation at every stage, creating accountability. The paper therefore aims to strengthen the growing academic interest in sustainable rural development studies.

CONCLUDING REMARKS

Recommendations

The study makes the following recommendations: (i) there should be an unlimited level of participation of all stakeholders, especially the community; (ii) the involvement of non-governmental stakeholders is required as this leads to better outcomes; (iii) finally, we must domesticate the policy instrument at the national and state levels through legislation rather than relying on political will.

Way Forward

The issue of cost and its effectiveness should be assessed and studied extensively and over time to ensure the viability and sustainability of Integrated Research Approach. Interventions at scale in the rural area require huge sums especially when different stakeholders across disciplines merge for the common good.

Also, the issue of time factor should be considered. It is no surprise that there could be a considerable drag in time to putting stakeholders together and executing the necessary and needed intervention(s). Several case studies should be critically studied across different geozones to determine the effect of time factor in the successful undertaking of integrated research approach either universally or in selected geo/ ecological/ political zones of the world.

In summary, an integrated research approach with the support of the local dwellers is needed to address the enormous challenges of rural development by making sustainable use of the available human and natural resources. This process must be guided by responsible values that ensure a balance between profit, happiness and conservation.

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