BIOECONOMY POLICY

ioeconomy policy refers to a strategic framework aimed at leveraging biological resources and processes to drive sustainable economic growth, innovation, and environmental stewardship. It integrates biotechnology, agriculture, and natural sciences to transform biological materials into economic value while addressing global challenges such as climate change, resource scarcity, and public health. Effective bioeconomy policies are crucial for fostering innovation, ensuring sustainable development, and maintaining global competitiveness. One of the primary goals of bioeconomy policy is to utilize biological resources in a manner that ensures their sustainability. This involves promoting practices that enhance the productivity of ecosystems while preserving biodiversity and preventing overexploitation of natural resources. Bioeconomy policies aim to stimulate economic growth by supporting industries that use biological materials and processes. This includes biotechnology, agriculture, forestry, and the development of new bio-based products. Such policies also focus on creating

high-skilled jobs and fostering innovation-driven entrepreneurship. By promoting the use of renewable biological resources, bioeconomy policies seek to reduce dependence on fossil fuels and lower greenhouse gas emissions. This involves encouraging the development and adoption of biofuels, biodegradable materials, and other eco-friendly alternatives. Encouraging research and development (R&D) is a cornerstone of bioeconomy policy. Investments in scientific research and technological innovation are critical for advancing biotechnological solutions, improving productivity, and developing new bio-based products. Bioeconomy policies often address public health by supporting the development of pharmaceuticals, diagnostics, and treatments derived from biological resources. Additionally, policies can promote healthier food systems and improve nutrition through advancements in agricultural biotechnology. A comprehensive bioeconomy policy requires a strategic framework that aligns with national or regional priorities. This framework typically includes long-term goals, specific objectives, and a clear vision for the role of the bioeconomy in the broader economic context. Establishing a supportive regulatory environment is essential for the growth of the bioeconomy. This includes creating regulations that ensure the safe and ethical use of biotechnology, streamline approval processes for new products, and protect intellectual property rights. Financial support and incentives are vital for stimulating bioeconomy activities. This can include public funding for R&D projects, tax incentives for bio-based industries, and grants for innovation-driven startups. Developing a skilled workforce is crucial for the success of the bioeconomy. Policies should support education and training programs in biotechnology, bioengineering, and related fields to ensure that the workforce can meet the demands of a rapidly evolving sector. Engaging the public and raising awareness about the benefits of the bioeconomy are important for gaining support and fostering acceptance. This includes communicating the environmental and economic advantages of bio-based products and processes. The bioeconomy is characterized by rapid technological advancements and evolving market dynamics. Policymakers must navigate these uncertainties to create flexible and adaptive policies that can respond to new developments and emerging trends. The bioeconomy intersects with various scientific disciplines and sectors. Effective policies require collaboration between governments, research institutions, industry stakeholders, and non-governmental organizations to address complex challenges and leverage opportunities. As countries vie for leadership in the bioeconomy, policies must address global competition by fostering innovation, attracting investment, and enhancing international cooperation. Bioeconomy policies play a pivotal role in shaping a sustainable and innovative future. By aligning economic growth with environmental stewardship and public health, these policies have the potential to drive significant advancements and create a more resilient and equitable global economy. Successful implementation requires a coordinated approach that balances strategic vision with practical measures, ensuring that the benefits of the bioeconomy are realized for current and future generations.

Food safety and processing: Ensuring what we eat is safe

BHAVNEET KOUR



ood safety is a fundamental public health concern, directly impacting the directly impacting the wellpopulations worldwide. With the increasing complexity of food production and: global supply chains, ensuring that food is safe from farm to table has never been more critical. Food safety encompasses a wide range of practices aimed at preventing con-

tamination and ensuring that the food we consume is free from harmful substances, including pathogens, chemicals, and physical hazards.

The Role of Food Processing

Food processing plays a crucial role in food safety. It involves transforming raw agricultural products into forms that are safe, palatable, and suitable for consumption. This process includes a variety of techniques such as pasteurization, canning, freezing, drying, and fermenting. These methods are designed to eliminate or reduce harmful microorganisms that can cause foodborne illnesses. For example, pasteurization is a process where foods, particularly dairy products, are heated to a specific temperature to kill bacteria like Salmonella and E. coli, which can be dangerous if consumed.

Processing also includes the use of additives and preservatives to extend the shelf life of food products. These substances help prevent spoilage and maintain nutritional quality over time. However, it is essential that these additives are used within regulatory guidelines to ensure they do not pose a

risk to consumer health. Challenges in Food Safety

Despite advances in food processing, ensuring food safety remains a challenge. Contamination can occur at any stage of the food supply chain, from production and processing to distribution and preparation. Cross-contamination, where harmful bacteria spread from one food item to another, is a common issue, particularly with raw meats and fresh produce. The global nature of food trade further complicates the situation, as food products are often sourced from multiple countries with varying safety standards.

Consumers Role

Consumers also play a vital role in ensuring food safety. Proper food handling practices at home are essential to prevent foodborne illnesses. This includes washing hands and surfaces frequently, cooking foods to the correct temperatures, and storing food properly. For instance, keeping raw meats separate from other foods can prevent cross-contamination, and refrigerating perishable items promptly helps slow the growth of harmful bacteria.

Conclusion

Food safety is a shared responsibility that involves everyone in the food supply chain, from farmers and food processors to retailers and consumers. By adhering to rigorous safety standards and being vigilant about food handling practices, we can significantly reduce the risk of foodborne illnesses. The integration of advanced food processing techniques with proper consumer education is essential to ensuring that the food we eat is safe, nutritious, and free from harmful contaminants. In a world where food production is increasingly globalized, maintaining stringent food safety protocols is more important than ever to protect public health.

Agricultural Development and Employment Generation

griculture is the oldest industry in the world and the largest even today. It is considered as one of the most significant economic activities across the globe because it produces those goods which are essential for the survival of human beings. In many developing nations, agriculture is the major existing industry. Agriculture provides employment opportunity for rural people on a large scale in underdeveloped and developing economies. It is an important source of livelihood. Human resource development, poverty eradication and employment generation are the principle goals of the developing nations. About one-quarter of the world's labour force work in agriculture. Agriculture is the prime source of income in the low to middle-income countries. A few centuries ago, this was in reality in rich countries too. As the countries get rich richer, the share of the population working in agriculture tends to decline as people move towards employment in industry and services. Agricultural industry in India has the capability and capacity to turn rural poverty to rural prosperity. Agriculture is considered as the catalyst for the overall development of the nation. It is thus a critical sector that drives the economic development and industrialization of the country. Agricultural development is very important for ensuring the food and nutritional security, income and employment generation and stimulating the overall economic development of India. Lack of awareness on micro-entrepreneurship in agriculture renders many micro-entrepreneurs to shy away from agro-processing in rural areas. Almost every district has been experiencing this kind of problem. The results are catastrophic to the small farmers whose meager market surpluses do not attract the corporate, large scale organised indus-

trialists. We observe that a large number of farmers do not able to find out buyers for their market surpluses at their farm level. All forms of infrastructure viz., physical infrastructure, economic infrastructure, electronic infrastructure and knowledge infrastructure is lagging in rural areas. As there is low technology base, the small and marginal farmers are engaged in low productive activities, turning out primary products without adding value in rural areas. Every year, the small farmers produce is sold at distress prices or at times when crop is not even harvested. Appropriate technologies can bring higher value to the produce like fruits, vegetables, milk etc. due to higher market value. It will generate employment among the workers in the value addition, maintenance of infrastructure and trading. Planned technologies can affect positively the quality of rural employment.

Agro-industries are accorded a prominent position in National Employment Policy. This sector contributes for about 40 per cent of factory-sector employment, 26 per cent of total output and 21 per cent in value addition in the organised sector. This sector has generated low level of capital per person. According to the Planning Commission this sector is one of the most promising sectors in employment generation. Some of the self-employment avenues are in the form of micro and small enterprises. Agri-clinic and Agri-business Centres fall in this category. Agri-clinics and Agri-business centres can help in bringing science and technology knowledge inputs to the average illiterates and low-skilled farmers and provide the benefits of scale and access to infrastructure and markets to the small and marginal farmers. Some of the activities that are taken by the Agri-clinic Agri-business Centres as:(1)Maintenance, repair and custom hiring of agricultural implements.(2)Soil and water-cuminputs testing labs.(3)Pest surveillance, diagnosand control services.(4)Seed processing.(5)Micro-propagation through plant tissue culture labs.(6)Setting up of vermiculture, biofertilisers, biopesticides and biocontrol beekeeping units.(7)Setting up of units.(8)Provision of extension consultancy services.(9)Facilitation of agricultural insurance services.(10)Setting aquaculture units.(11)Provision of livestock health services.(12)Setting up of value addition units.(13)Setting up of information technology kiosks in rural areas.(14)Setting up of post harvesting centres for grading, storage and packaging.(15)Food processing and testing units.(16)Setting up of retail marketing outlets for agri-products.

In order to encourage the flow of science and technology benefits to small and marginal farmers, the government has decided to encourage graduates in agriculture and allied sectors with institutional financial support to set these Agriclinic and Agri-business Centres. Self-employment seeking youths can set up these centres either individually or on group basis. The key success of micro-enterprise projects for rural poor lies with the productivity of an enterprise. The training experience of rural vouths for selfemployment indicates that there exists enormous scope for increasing the viability through technology up gradation in a number of product lines. With identification of appropriate rural technologies and their popularisation among user population, the number of viable self-employment opportunities for the enterprising youths can be very large. It has been observed that with innovative technology support, the rural poor can build very attractive self-employment opportunities. Some

technologies pass the vardstick of technical viability and feasibility. This can be labour-intensive, local resource based and help in adding value to the waste material. The technology of sugarcane thrash processing into fuel briquettes in the sugarcane fields is a classical example of a promising labour intensive employment generating technology which could not pass the test of market due to the distorted macro-economic policies in the country. Appropriate technologies have enormous potential to increase the productivity of agribased enterprises and thus help in generating employment opportunities. Although developing technologies is a challenge, their transfer is very important for this potential into a reality. Technologies transfer policies should be flexible and encourage provision for innovation and experimentation. For policy intervention six categories are needed:(i)Identification and popularisation of low-cost technologies.(ii)Redesigning research and development agenda of state funded science and technologies institutions to address the technology for small farmers.(iii)Organising small farmers into viable units.(iv)Encouraging science and technologies institutions with the necessary funds.(v)Permitting science and technologies institutions to enter into memorandum of undertaking on risk and reward sharing with the technology user groups.(vi)Developing farm markets in the form of infrastructure, storage, handling and processing capacity and providing connectivity to small farmers. Agricultural sector raises rural income levels and creates an effective market for more and new industrial goods. It enlarges the size of the market. Agricultural sector expands the market at national and international

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Address the basic needs of specially-abled children

MOHAMMAD HANIEF



ment in the health care system in the country, the situation of speciallyabled children remains deplorable, particularly in rural areas and among

the lower socio-economic population. Speciallyabled children in India are subject to multiple deprivations and limited opportunities in several dimensions of their lives. Some of these include, not being enrolled to schools, lower employment rates, limited awareness of entitlements and services available and lack of social welfare support.

Due to stigma associated with disabilities, families become victims of discrimination and human rights abuse. When poverty, physical neglect and social marginalization intersect, the impact on the disabled can be devastating. Specially abled children are kept hidden away at their home, denied basic rights of mobility, education and employ-

The community-based rehabilitation (CBR) is a dynamic program globally for supporting speciallyabled children to lead better quality of life and lead life with dignity, wherein their rights are respected and guarded within their own communities and it creates platform for addressing the discriminatory practices in the community.

Such discrimination in some cases starts from the family members and spreads right up to the policy makers and state authorities. As a result of such discrimination the Specially-abled children face chronic ill health, socio-economic burden and destitution. Sometimes it is so difficult to define the marginalization - they are outside the margin or within the community meaning, locked in the rooms, institutionalized, families isolating themselves, enrolling in special schools, not admitting that they have children with disabilities (CWDs), in the hospitals, etc.

Social attitudes and stigma play an important role in limiting the opportunities of disabled people for full participation in social and economic life, often even within their own families.



Predominantly in the cases of mental or intellectual disability, the family members are reluctant to accept the disability or refer to it as a physical illness and treatable condition. The pseudo-stigma attached to such disabilities, makes them hide the fact of having a disabled or challenged member at home ultimately leading to social isolation and restrictive behaviors.

There is a fear that they would be victims of disgrace and indignity and thereby family members lose the status or acceptance they enjoy in the community. This denial becomes a hurdle for early identification and treatment. Such persons would be hidden somewhere and they expect, unrealistically, to overcome the situation without realizing the long term consequences of such self-imposed

It is preventing of CWDs participating in any social events. Even the family members of the disabled often tend to avoid such social gatherings in shame or fear that someone would ask about their family member with disability. Specially-abled children are not exposed to any social gathering nor does our community recognize the need for chil dren participation.CWDs are not been given opportunities in the areas of education, training and employment. Under these circumstances it is natural that the CWDs feel rejected or unwanted in the society.

Due to differential gender-based role expectations, education is not considered a priority for disabled girls. Dropout rates for disabled girls are higher than for disabled boys. There is an overrepresentation of disabled boys in education, both in special and mainstream schools. Parents become more protective and restrictive, especially after a disabled girl reaches puberty. Travelling to school is a huge problem, since, besides transport difficulties, the danger of sexual abuse and violation looms large.

Persons with disabilities comprise at least 4 to 8 percent of the Indian population. Children with disabilities in India are subject to multiple deprivations and limited opportunities in several dimensions of their lives. Their families and caregivers also go through lot of stress and challenges in having a person with disability at home which ultimately leads to grave discriminatory practices towards these children.

The case studies describes the various ugly forms of the discriminatory practices seen in the community towards Specially-abled children, same been categorized as denial of disability, physical restraints, social boycott, denial of property rights, decreased marital life prospects due to disabled member in family, implications on sexuality of people with disability, women with disability dis crepancies in state welfare programs, and problems in measuring disabilities.

Worldwide it is accepted to use International Classification of Functioning (ICF), disability and health, known more commonly as ICE as measurement for quantifying disability, classification of health and health-related domains. These domains are classified from body, individual and societal perspectives by means of two lists: A list of

body functions and structure, and a list of domains of activity and participation. Since an individual's functioning and disability occurs in a context, the ICF also includes a list of environmental factors. Despite this common measurement tool for assessing disability are lacking. In some states Individuals with Disabilities Education Act/WHO Disability Assessment Schedule/ICF are used.

During the last two decades, there has been a growing realization that institutional care for the disabled is not entirely suitable for their individual needs, dignity and independence. A movement towards community based rehabilitation has picked up pace and contribute toward greater independence and self-sustainability of the dis-

Disability sector has recognized the importance of dignity, respect, inclusion, participation, equalization of opportunities and empowerment as key issues of rehabilitation. The negative attitudes and cultural representations of disability in society are challenged through vigorous awareness-generation and attitudinal change strategies. The issue of disability must consciously move beyond issues of special education and medical rehabilitation and be mainstreamed into other discourses such as the economy, polity, entertainment, sports, fashion and lifestyle.

Community-based rehabilitation as a strategy helps to address the ugly forms of discrimination existing in the community. The strategy also focuses on enhancing the quality of life for CWDs and their families, to meet their basic needs and ensuring inclusion and participation in their own development and also participating in the community development.

The CBR aims not only creates awareness about the rights of people with disabilities among the community members but also guarantees opportunities for their participation in social activities and also excising their rights within their own communities rather than getting isolated into institutions. The CBR has become a multi-sectoral approach that empowers persons with disabilities to access and benefit from education, employment, health and social service.

Congress Ka Haat NC Ke Saath

OMKAR DATTATRAY

he era of alliance and coalition politics has come to stay in our political system, parliamentary democracy, our federal set up/arrangement, and J&K politics and state elections are no exception to this fact. NC is part of INDIA bloc at the all India level and in the past also Congress and NC had allied several times and fought assembly elections with the pre-poll alliance and had also formed coalition governments in Jammu and Kashmir.

Since both Congress and NC are secular parties and they can forge a pre-poll alliance to keep saffron party BJP at bay and for assuming power in J&K after the historical and crucial polls.

No wonder that the two parties namely Congress and NC have decided to forge a prepoll alliance to fight the assembly elections, the process of which has commenced .Congress president Mallikarjun Kharge and Congress leader and the Lop in parliament have come to Jammu and Kashmir on two day visit and they have visited Srinagar and held threadbare discussions and deliberations with NC president Dr Farooq Abdullah & vice-President Omer Abdulla and have forged a pre-poll alliance with NC for fighting the assembly elections together.

Both the political parties and their leaders have realized that it is not politically viable and feasible to fight the assembly elections singly and on their own because in today's political environment and atmosphere no single party has mass base either in Jammu or in Kashmir and so it is in the interests of both the Congress and NC to enter into pre-poll alliance to fight the historical elections after the 10 years long governors/presidential rule in the erstwhile state of Jammu and Kashmir. NC's top leader and president said that the

pre -poll alliance with the Congress is final and this alliance is for all the 90 assembly

seats in J&K. Congress leader Rahul Gandhi said that the two likeminded parties of Congress and National Conference have agreed on the prepoll alliance for the ensuing elections, the process of which has already begun in the UT. However Congress scion and dynast reiterated that this alliance with the NC will not be at the cost of the interests of Congress workers and no compromises will be made with the party ideology and the party's interests are supreme and will not be compromised at any cost. The announcement came after Leader of Opposition in LoK Sabha Rahul Gandhi & Congress president Mallikarjun Kharge called on the NC leadership at the residence of Farooq Abdullah. Thus in a significant political development, Congress and NC has decided to have a pre-poll alliance and in fact have arrived at the alliance to fight the ensuing assembly polls together.

The alliance between the Congress and NC will have great political bearing on the assembly elections and on the politics of Jammu and Kashmir .We have heard about Indira -Abdullah accord and Rajiv -Farooq accord and it implies and signifies that the two parties are friendly and not political rivals and no surprise that once again they have agreed and formed a pre-poll alliance to fight the coming assembly elections.

It seems that this alliance will ultimately change into post-poll alliance after the elections are over and the election outcomes pour in and in all probability these two parties may also stitch a coalition government. Rahul Gandhi has said that issue of the restoration of full statehood to J&K is the top priority of Congress and INDIA bloc and these opposition parties are working and fighting for this noble cause which will be in the interests of the people of Jammu and Kashmir.

Rahul also stated that in the India's political history ,we have seen UT's becoming states but under Modi government Jammu and Kashmir state was downgraded and bifurcated into two UT's of Jammu Kashmir and Ladakh which is political fraud committed with the people of the erstwhile state of Jammu and Kashmir .It seems that the Congress-NC alliance for fighting assembly polls jointly will be in the interest of the peonle of the UT

Rahul Gandhi said that the alliance between Congress and NC is aimed at not only for fighting the state elections, but its aim is also to defeat the divisive forces of BJP who are spreading hate and hatred in the country only for the sake of remaining in power .Earlier Congress chief Kharge has expressed his willingness to forge an alliance with other opposition parties for the upcoming Jammu and Kashmir assembly polls and he termed the promises given by BJP government to people of J&K as" Jumla." At this juncture nothing certain can be said about the formation of a coalition government after the poll results will be declared by the election commission, but both the alliance partners of Congress and NC are hopeful that at the end of the electoral exercise this alliance will be able to switch and cobble a coalition government in the UT. Congress has also allied with CPI-M of Tarigami, Congress and National Conference stitched a pre-poll alliance for upcoming J&K assembly elections in Srinagar the other day ,with an 'aim to fight the divisive forces spreading hate in the country."The two parties deliberated on the seat sharing arrangement for all the 90 seats . Meeting was held in a cordial atmosphere and the alliance is on track was said by Farooq Abdullah. Congress

NC and CPI-M are together and I hope people are with us as per Farooq Abdullah .He further stated that people of J& K have suffered for the last 10 years and hoped that statehood would be restored as soon as possible. He also said "We stand with the INDIA bloc .Our common priority is to defeat the divisive forces through forging an alliance of Congress and NC. Seat -sharing arrangements will be made public phase wise and no doors are closed for any party -for post -poll alliances, said senior Abdullah. Congress leader Rahul Gandhi said, since independence J&K is the only region where statehood was down sided and people are suffering. Following the ECI's announcement of the poll schedule for Jammu and Kashmir on August 16,the political landscape of the region is witnessing high-profile visits and alliances .Rahul Gandhi also said that money UT's post-independence were upgraded to states. But there is only one instance when a statehood was revoked and two UT's created .He termed it as a unique occurrence, saving that it has never happened in the history of independent India .Rahul also said that it was the priority of the Congress and INDIA bloc to restore statehood to Jammu and Kashmir .To sum up ,it can be said that now the prepoll alliance between Congress and National Conference has been forged, it becomes the responsibility to take serious steps to fight JK assembly polls together and for this end both the parties should work hard and fight assembly polls so that at the end of the electoral period ,alliance government may be formed which would care for the people of J&K and strive to address the issues and problems confronting the people .Congress-NC alliance Zindabad.

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