



## NUTRITIONAL POLICY RESPONSES TO COVID-19 IN TWO GLOBAL DEMOCRACIES: INDIA AND GERMANY

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### ABSTRACT

**Objectives:** Among varied challenges of COVID-19, challenges in food and nutrition security world-over are critical. We compared the nutritional policy responses in India and Germany since both countries differ on the Human Development Index, yet both have committed to the G20 common policy response to COVID-19, besides the comparability of two large and heterogeneously populated countries, both having democratic governments. **Methods:** Policy research publications were reviewed using qualitative meta-policy approach. We used comparative case-study. Recent food and nutrition policies of G20 nations of India and Germany were evaluated. **Results:** India has primarily targeted her public distribution system and Germany has primarily targeted her food markets in order to manage the food and nutrition security in response to COVID-19. Both countries are coordinating additional associated nutritional policies, policies and strategies to effect an integrated sectoral approach to COVID-19 management. Both are using corrective measures of the process management strategies as well. However, the Indian management of micronutrient security for her population has over COVID-19 times acerbated and the German loan management to nutrition and agricultural small-scale industry appears to be functioning sub-optimally. **Conclusions:** Our analysis indicates both India and Germany have responded to COVID-19 in a timely and appropriate manner regarding the food and nutrition security measures. Even so not all measures employed to tackle COVID-19 food and nutrition security have been effectively implemented, It appears, that both countries are using integrated policy in their nutrition and food security response to COVID-19.

**KEYWORDS :** Food Security, Nutrition Security, COVID-19, India, Germany, Nutritional Policy

### INTRODUCTION

Corona Virus Disease, first presented in China in the year 2019 (COVID-19), has introduced challenges world over, among them also in food and nutrition security. The health-risk poised due to the unexpected emergence of novel COVID-19 has propelled the world into a pandemic disaster management program within a period of about four months. Any crisis management requires the maintenance of food and nutrition security as one of the primary means to maintain well-being of a society (1,2). Kinsey and colleagues (1) reported that in periods of uncertainty, such as, three days of school closure in response to social emergency, resulted in food and nutrition insecurity to the order that as many as 40.5600 missed meals were documented for school-age children, a vulnerable age-dependent developmental group. With COVID-19 with much greater periods of uncertainty, such as lock-downs, civil curfews and government recommended self-imposed quarantines for minimum three weeks' world over, maintenance of food and nutrition security would present greater challenge than only three days of emergency (1).

Immediate policy measures to counteract COVID-19 were undertaken to various extents and in various measures in an unprecedented manner world over. In an extraordinary virtual G20 Leaders' Summit convened on 26, March, 2020 leaders of the participating nations discussed the challenges posed by the outbreak of the COVID-19 pandemic and called for forging a global coordinated response (3). Individual and collective goals for the participating G20 countries were summarized as to protect lives, safeguard jobs and incomes, restore confidence with financial stability with revival and stronger recovery of growth, minimizing disruptions in trade and global supply chains, providing help to all countries in need of assistance, coordinating public health and financial measures as well as fighting the pandemic (3). Both India and Germany were part of this joint statement of G20 nations. India and Germany vary on the Human Development Index (HDI) (4), yet both countries have affirmed to counteract COVID-19 with same working goals (3), both share major commonalities of being relatively large and heterogeneously populated in their regions of South Asia and Europe, respectively, and both countries operate on democratic principles (5,6), all of which presented a basis of comparison. Thus, the objective of the current analysis was to investigate nutritional policy responses to COVID-19 in India and Germany.

### Method

We undertook a review of food and nutrition policy responses to COVID-19 and to publications that reported on management of food and nutrition security under various emergency situations, such as,

social unrest or Ebola Virus Disease (EVD) in the recent world history to maintain relatively actual time comparability. Thereby, our focus was on comparing the management of food and nutrition security irrespective of causation of the food and nutrition insecurity in the recent world history to afford a comparability standard, external to the two countries under observation, i.e., India and Germany. We used the method of qualitative meta-policy review with comparative case-study analysis with the observable unit of interest being not human participants but the recent food and nutrition policies of the two G20 nations of India and Germany. Ethical clearance was declared redundant since we did not use any person data.

### RESULTS

The National and State Governments in India have issued numerous policy measures to mitigate hunger, chronic energy malnutrition, and preventing disruptions in the agriculture and allied sectors, including food distribution chains (7). The German response has targeted at the maintenance of agricultural and industrial food production, food supply, food sales and consumption, taking care of maintenance of value-added supply chain, including tertiary service maintenance augmented with consumer advocacy (8).

India is targeting in reaching her poor, elderly, disabled and weaker strata of the nation in their nutritional response to COVID-19. India's National Food Security Act mandates food and nutrition support in a life-cycle, a step towards food-rights. It includes three major food and nutrition programs such as Targeted Public Distribution System (TPDS), Mid-Day Meal Program (MDM) and Integrated Child Development Service program (ICDS). ICDS provides supplementary nutrition to pregnant and lactating mothers and children under six years of age. MDM is a school-children meal program. TPDS is part of food public distribution or commonly addressed to as food-ration system and is a general population food security measure. India, an emerging economy, but with a sizable population in subsistence agriculture, community and households, the COVID-19 interventions have focused on maintenance of primary food-security and protein energy malnutrition.

Germany at an HDI of 4(4) is concentrating in maintaining the nutritional markets and the nutritional health of the population, with concerted inter-sectoral integrated measures to avoid a drop in food production, loss of food producers and consumers, loss in food supply chain as while promoting nutrition awareness and empowerment. The federal government has identified nutrition and agricultural industry as critical infrastructure for the country, stipulating the smooth functioning

of food retail, weekly markets and direct agricultural marketers, collection and delivery services for the food sector, food businesses producing food, agricultural holdings including specialized crop holdings, livestock farms, hatcheries and animal breeding farms (8).

### Core nutritional policy measures

India in her core nutritional policy is targeting food delivery and maintenance of food supply chain providing free food grains, advance rationing, supplementary nutrition at doorsteps benefiting the children, women and lactating mothers, provision of mid-day meals to school children or food security allowances in lieu of that, increasing monthly quota of subsidized food grains, providing financial support to the vulnerable with monthly allowances to daily wage labourers using Direct Benefit Transfers (DBT) etc. The Ministry of Women and Child, the nodal Ministry for nutrition issued a guideline on Infant and Young Child Feeding (IYCF) with precautionary measures to protect from infection and a coping strategy for Children and Caregivers. Special hunger relief camps and community kitchens are being set up for most distressed people and migrants to provide them hot cooked meal and other necessities. Likewise, Germany in core nutritional policy is also targeting food delivery and maintenance of food supply chain by issuing directives for the market functioning, agricultural and consumer, sale and purchase of food, and nutritional awareness marketing through promotion of consumer awareness.

### "Core nutritional policy measures".

Core nutritional policy measures require suitable integrative support of additional sectors, ministries and agencies, in order to maintain the human capital potential and prevent economic disruption (4).

India in response to COVID-19 (7) has placed numerous social protection measures like ex-gratia financial remunerations to marginalized population, increase in wage-rate of labourers, doubling of the entitlements of food grains for three months, collateral-free loans to women self-help groups, and financial assistance to villagers through cooperatives as an additional measure to reduce vulnerability of the marginalized population subject to multiple risks. The National Food Security Act in the recent past has been a key movement towards the direction of food as part of fundamental rights in India, which in COVID-19 management is showing certain benefits. The Indian Council of Agricultural Research (ICAR) has issued directives for harvesting and threshing of the winter season crop (Rabi crop) with post-harvest measures for storage and marketing of agricultural products. India's policy decision to allow functioning of the agricultural and marine fishery sector, operation of rural wholesale markets (Mandi), fertilizer and pesticide industry, seed and agricultural machinery markets during COVID-19 lock-down indicate a clear effort to maintain food and nutrition security through maintenance of food-systems and food-chain supply. Federal states committed themselves to procure grain at a minimum support price (MSP) through village procurement centres for the public distribution system, thereby maintaining agricultural incomes.

Likewise, Germany has also effected social protection measures. The federal government has declared on 23.03.2020 nutrition and land industry as critical infrastructure for the country, allowing employees of this sector the use of emergency child-care services so that the sector can continue functioning. These are the food retail shops, drugstores and chemists, weekly markets and direct agricultural marketers, collection and delivery services for the food sector, food businesses producing food, agricultural holdings including specialized crop holdings, livestock farms, hatcheries and animal breeding farms. Any mode of operation not explicitly listed does not imply that further operations cannot be included in the federal government released listing. The increased food demand in food retail trade, due to purchase of long-life food by customers, has led to lack of manpower in meeting this demand as while simultaneously employees of restaurants and cafeterias have less work to do. Thus, government has enabled the adjusting of surplus manpower in one food sector in adjacent food sectors, e. g. in refilling food shelves in food stores. The federal ministry of nutrition and agriculture (BMEL) in cooperation with the ministry of transport have eased logistic bottlenecks in freight and transport, for example, the driving and rest times in freight transport has been made more flexible and checks and ban on truck-driving on Sundays and public holidays have been eased. The federal ministry of labor and social affairs (BMAS) is currently developing options for flexible work times, so that the critical infrastructure of nutrition and agriculture industry will be able to benefit from flexible

work timings. The BMEL is advocating food purchases according to regular food demands, thereby avoiding hamper food purchases and showing solidarity with those who cannot afford to buy food in larger quantities. Thus, people have been told to shop reasonably and keep to sense of proportion as while food shopping. The federal government has declared an emergency funding for a budget of 50 billion for small enterprises, self-employed, freelancers and companies in primary agricultural production, which is, agriculture forestry, fisheries, with up to 10 full-time equivalent employees, subject to the condition that the financial emergency has arisen due to COVID-19 crisis, as while simultaneously financial difficulties existing prior to 31.12.2019 will not be considered under this COVID-19 support program. Diverging individual COVID-19 measures with other COVID-19 pandemic aid measures have been effected indicating curtailing of misuse of the system, i.e., any overcompensation will have to be reimbursed to the government. The disbursement of the funds has been implemented from 30.03.2020 and all applications require to be submitted latest by 31.05.2020. The consideration of legal form of the companies has been momentarily suspended in order to make available emergency funding for all legal industrial entities. Farmers, horticultural businesses and winegrowers have been allowed for loan application from Agricultural Pension Banks (Landwirtschaftliche Rentenbank) to ensure business liquidity. The loans have a term of four, six or ten years with one-year grace period and the program has been effected till 30.06.2021.

### Consumer awareness measures

India is ensuring safe and wholesome food in the country. India's food regulator, FSSAI has issued guidelines and directives on keeping food safe in times of social distancing, food safety measures for the handlers, industry and vendors and safety measures across value chain including cooking and storing. Food-regulators are counteracting any kind of food myths by social media sharing of facts and general awareness messages. Inclusion of measures against COVID-19 has also been declared as part of corporate social responsibility, allowing public-private cooperation. Consumer awareness interventions have been large-scaled in Germany in response to COVID-19. Food safety and hygiene measures have been promoted across food value chain. Food supplements that advertise with "corona" are not permitted. Health promoting effects may be attributed to food supplements if they have been approved by the EU Commission and after positive scientific testing by the European Food Safety Authority. The Federal Office of Consumer Protection and Food Safety (BVL) will contact platforms still advertising Corona food supplements, and request them to stop offering these products for sale. Breastfeeding is still recommended. The National Breastfeeding Commission has issued the statement that no pathogens of COVID-19 have been detected in breast milk of infected women, even though the investigations still relate to a very small number of women. In prevention of developing social alarm situations proactive information is being provided on various social critical issues. For example, that the transmission of COVID-19 is unlikely via contaminated food, including imported food products, given the maintenance of general rules of hygiene in everyday life, such as regular hand washing and hygiene rule in food preparation. Consumers are informed that the COVID-19 virus is sensitive to heat, which further reduces the very low risk of spread via food, when food is cooked to stage done with heat. Likewise, consumers have been informed that to date no infection has been reported that was spread via food. Consumer help was even provided for Easter celebrations, such as, to avoid blowing of Easter eggs for painting and dyeing with mouth, to use instead boiled eggs, easing of opening of groceries and super-markets over the Easter holidays to avoid peak shopping times with over-populated markets.

### DISCUSSION

Our analysis indicates that the nutritional policy responses to COVID-19 by India and Germany indicate foremost a relatively timely response to the crises. Both countries with different HDI have effected measures to maintain food and nutrition security in COVID-19 times and to counteract COVID-19 with nutritional and food system maintenance. This is being implemented complementary to G20 goals of protecting lives and fighting the pandemic (3). For example, medical management of COVID-19 in India was eased with the India's apex judiciary, the Supreme Court, in ordering free COVID-19 tests to be carried out by the government as well as accredited laboratories. Likewise, the medical management of COVID-19 in Germany indicates successful disease management with lower death rates and the medical services surplus being offered and in use for neighboring

countries patients. Retrospective studies on EVD-epidemic outbreak in Sierra Leone showed a break in the food system akin to natural disasters (2). Medical management of EVD was effected (9) though at large-scale disruptions in the food systems (2), indicating crises management might not always be able to integrate food and nutrition security, in consequence of the major challenge. An analysis of EVD in Guinea by Kodish and colleagues (10) reiterated the Sierra Leone experience, which is, that the household food security was negatively impacted, along with weakened care-seeking practices and weakened infant and young child feeding practices. In short, the disease management occurred at the cost of food and nutritional security management. In contrast, India and Germany seem to not only be medically managing COVID-19 but also nutritionally.

Further, COVID-19 response both in India and Germany seem to be tackling the critical developmental age-groups, i.e., children and elderly, as well socio-economic groups, i.e. the landless, the migrant laborer, the women and socio-economically weaker segments of the society by managing food retail sale. That is both countries are effecting measures somewhat differently but serving the same basic goals of G20 (3). Other examples have shown that in crisis typically the critical groups' nutrition was compromised the most (2,9,10). The EVD epidemiology in Sierra Leone showed a mean contact rate of 25 people (9), which is almost ten times higher than COVID-19 mean contact rate for disease spread. However, EVD was declared epidemic in Guinea and Sierra Leon whereas COVID-19 in comparison is a pandemic.

Our analysis indicates that COVID-19 in India and Germany is being managed with maintenance of food supply chains. That is even so the individual measures to achieve the goals are different in the two countries (7,8), the G20 goals (3) of minimizing disruptions in trade and global supply chains in the nutrition and agricultural sector as while coordinating public health measures seem to be operating in both countries, as while using different local strategies. Further, the analysis indicates that measures to maintain food and nutrition security in COVID-19 crises in India and Germany are being conducted with core nutritional strategies as while also with complementary and integrated inter-sectoral strategies with process management. Management requires corrective measures as while in operation, called process management, and the COVID-19 nutritional policy response seems to be operating with such corrective measures. For example, in India in the initial COVID-19 lock-down phase due to the lock-down the livelihoods of marginal farmers and landless or migrant labourers was affected, which though was counteracted with effecting of standard operating procedures thereby averting extended vulnerability periods. Likewise, in Germany, there are active solution-finding to existing policies, e.g. if the labour market protection laws avoided flexible work timings, solutions are being worked out to surmount a primarily labor protection policy. That is, it appears not only that food and nutrition security have been effected, it appears that they are being constantly evaluated with process management and corrective measures.

Yet not every aspect of food and nutrition security is in place with COVID-19 challenge. India has not been able to as effectively manage micronutrient malnutrition or hidden hunger with COVID-19. Due to the lock-down, again primarily towards controlling spread of COVID-19, the vitamin A, iron and folic acid supplementation program has been affected. This is so as the production of diverse crops, fruits and vegetable and these markets have been disrupted due to lockdown. Probably, this will affect the dietary diversity in India in the near future, especially for the pregnant and lactating, and children under 2 years of age. Likewise, not every policy measure in Germany is operating without hitches. Even so financial help has been declared for small-scale industry, typically nutritional, agriculture and food-service industry, and agricultural sector due to hacking of the computer system with false applications by unknown third parties, the measure has been recently put on hold till investigations will be completed. This would be some amount of livelihood losses in the small-scale industry, for which Germany has to probably pay the price in the near future, given no parallel alternate solutions.

The EVD response analysis (2,9,10) in African nations or the social insurgency crisis analysis in Philadelphia (1) were all conducted post-hoc. All studies concluded a certain lack of nutritional support or break in food and nutrition security. Our rapid response analysis to COVID-19 is limited in an evaluation of a current crises. It remains a test of time

to post-hoc analyse the nutritional policy response effectiveness in COVID-19 in India and Germany at later dates. Further, we are limited in comparing social insurgence and epidemic based crises to a pandemic crisis in recent comparable world history.

## CONCLUSION

Our analysis shows that two of world 's democracies have begun with timely nutrition policy responses to COVID-19. The method of nutrition policy management varies in the two countries, India targeting food and nutrition security while Germany is targeting nutrition and agriculture production and industry, supply-chain, food access and consumer awareness. Both countries have been similar in couching their nutrition policy response to COVID-19 within a broader framework of constructive and integrated policy measures, which augment the effectiveness of the nutritional policy response securing food and nutrition security in both countries in COVID-19 pandemic. Future studies require investigating if these nutritional policies effected have been post-hoc beneficial to the population in the two countries.

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