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Core IV-B, Fourth Floor, India Habitat Centre Lodhi Road, New Delhi – 110 003 (India) Tel: +91-11-2468 2177/2180; Fax: +91-11-2468 2173/74 Email: dgoffice@ris.org.in

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Post-pandemic Social Security Agenda: Universalising Developmental Interventions Over Universal Basic Income

Pramod Kumar Anand* Krishna Kumar*

Abstract: The idea of a Universal Basic Income (UBI) remains much deliberated upon. Introduction of a UBI emanates from the bedrock to avoid any wrong exclusion, but faces numerous challenges and has seen only a few favourable responses from governments. UBI debate covers issues like its being an income or a transfer, choice between it and a targeted intervention, its conditionality, being free, exclusion, inclusion and deprivation. The aspect of financial implications covers the analysis of sources including the Economic Survey 2016-17 of Government of India, budget-neutrality, comparison with the expenditure on existing social assistance programmes and safety nets. Multifarious economic aspects of undertaking a UBI include Pareto optimality; savings and investments; public debt and consumer choices based on utility depicted through Indifference curves. As a way forward the novel ideas of 'Universal Programmes with Likelihood Inbuilt to Fairly Target' (UPLIFT) in order to mostly attract needy, and as an enabler to have better outreach 'Look Out to Cover All Targeted but Excluded' (LOCATE) are proposed in the context of developing countries.

Keywords: SDGs, UBI, Targeted, budget-neutrality, 'UPLIFT', 'LOCATE'.

1. Introduction

All civilized societies express concerns about the vulnerable and poor and frame policies that may vary in degrees, to reach out them. In this endeavor a common concern is that no needy is left out without adequate support to meet basic requirements. This leads to the debate on the trade-off between adequacy to meet basic needs and coverage, given that mostly

^{*} Visiting Fellow, RIS. Email: pk.anand@ris.org.in; krishna.kumar@ris.org.in.

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the governments tasked to accomplish it don't have deep enough pockets. All the more they realise that once introduced such support needs to be continued perpetually, and the quantum of annual support per individual also needs to be increased in nominal terms to keep pace with inflation. Of course, any successful reduction in the number of needy can reverse the rising trend of overall quantum of support. Still the possibility of unforeseen disasters and health and other shocks, can't be ruled out altogether. Seen from the angle of SDGs the Goal 1 on ending poverty, Goals 5 on gender equality, and Goal 10 on equality within and among nations, emphasise on the need to take better care of poor, and vulnerable in the spirit of 'no one be left behind'; moreover, these Goals have deep interconnects with other Goals. In the bouquet of multifarious policy instruments, the idea of a Universal Basic Income (UBI) has come to the fore and remains much deliberated upon. On the importance of UBI debate Gentilini et al (2020) underscore1 that only a few development topics elicit so much interest as well controversy. They add that there is literally a book published on UBI every month, with the concept being examined across subjects like economics, sociology, governance, philosophy, and political science. This pushes back the debate towards a relatively economical targeted intervention.

2. Review of Literature

On the anatomy of UBI, Gentilini and Grosh (2020) argue that a UBI is a transfer having combination of three choices of being provided universally, unconditionally and in cash.² Prabhakar quoting Piachaud (2018)³ states that a UBI has five key parts, being regular; paid in cash; to the individual; being universal with no means test; and being unconditional with no requirement to work or seek work.⁴ On this issue the Basic Income Earth Network (BIEN) defines the Basic Income as a periodic cash payment unconditionally delivered to all on an individual basis, without means-test or work requirement.⁵ Gentilini and Grosh (2020) underscore pros of a UBI that it provides flat support to whole population, needs no verification (except for payment), and possibly has social cohesion and relatively incentive compatible. On the cons side the support to worse off is no more than to others, it is fiscally expensive

if adequate, it may socially and politically polarize, and as only two countries have adopted it so it is difficult to understand.⁶

On the aspect of financing a UBI, Rigolini et al. (2020) argue⁷ that to finance UBI levels, which have meaningful impact on poverty, taxation on the top 10 per cent would need to increase substantially. They compute various scenarios and argue that the required rise in direct taxes on the top decile is from 2.2 per cent to 68.4 per cent in India. Similar rise computed for Brazil is from 7.2 per cent to 24.5 per cent; for South Africa from 19.9 per cent to 40.3 per cent; and for Chile, from 5.4 per cent to 38.4 per cent. The only feasible country in the sample, they find, is Russia where the required rise would be from 9.0 per cent to 13.2 per cent. They go ahead to summarize in the country contexts that, where the assistance is providing relatively adequate benefits, substantial coverage, and slight progressivity; rather specific hampering bottlenecks be tackled. And for the countries with high but non-progressive social assistance, a UBI is an option, although some vulnerable age groups may suffer from the shift. Further, for the countries where assistance is limited, but progressive, a UBI would extend coverage but also flatten the distribution. They add that to be budget neutral, it means less for more and likely less at the bottom. Their analysis largely implies against choice of a UBI for India as it has a progressive social assistance being higher for the downtrodden. Ter-Minassian argues⁸ on the scope of financing a UBI from various measures like expenditure, revenue, etc. The suggested expenditure related measures include expenditure savings, subsidy reforms and reforms of wages and employment. The suggested revenue raising measures include higher taxes on personal income, corporate income, wealth, consumption; other potential revenue sources and nontax revenues. Ter-Minassian concludes⁹ in favour of a long time horizon, to provide permanent, stable, and predictable revenue to households and not to use a temporary fiscal space, by easy financing conditions which may disappear. She adds that fiscal space to fund a non-budget-neutral UBI that accounts for both short-term financing constraints and longerterm fiscal sustainability is mostly unlikely to be viable as so evidenced in many countries. An EPW editorial argues¹⁰ that a watered-down UBI based upon a dismantling of the existing social welfare schemes would be disastrous. It advocates unconditional subsistence level income for everyone alongwith access to well-functioning public services. Further criticising the approach of Economic Survey (2016-17) it argues against dismantling of the most socially necessary welfare schemes, quoting among these public distribution system (PDS), MGNREGS and the midday meal scheme (MDM). It terms the desire to stick to budget neutrality as the most illogical part of the UBI vision, suggesting financing it from income and wealth taxation of the very rich, and indirect taxation of socially less desirable economic activities. The then Chief Economic Adviser to Government of India had argued that universal basic income can work only if welfare schemes are phased out. He elaborated that the radical idea of giving free money under a universal basic income plan to reduce poverty can work in India only if the plethora of welfare schemes are phased out¹¹. In the backdrop of COVID-19, Prabhakar (2020) argues¹² that at best, there is a case for temporary emergency income payments, and turning these into permanent ones requires engaging with the more usual arguments over a basic income heard in more usual times. Martinelli (2017) argues that a policy dilemma between affordability and adequacy does indeed afflict full basic income, adding the possibility, 'to design an affordable and adequate partial basic income scheme¹³. On the tradeoff of adopting a UBI not in the nature of universality Martinelli (2017) also argues that it forfeits advantages like elimination of means testing and related conditionality from the welfare system¹⁴. He adds that the propounded three-way trade-off in policy design between affordability, adequacy, and securing the full advantages of basic income being radical as a simplification of existing welfare policy; further adding that with micro-simulation evidence for the UK it can be demonstrated that at the most two of the three criteria can be achieved in a single scheme.

On the impact of UBI beneficiaries' work participation Bastgali (2020) argues¹⁵ that if a UBI replaces formal worker contributory schemes or a reduction in job security in formal employment, then it may weaken

incentives to formalize. Correa (2019) ¹⁶ argues, in a critique of UBI, that while monetary authority can implement the golden rule of consumption, its consequences for work, saving and investment are ambiguous. He adds that impact on the price level is indeterminate. On strengthening of workers, Bimbaum and Wispelaere (2016) negate that the BI improves workers' bargaining power granting them an exit option¹⁷. Going a step further they point out that under the then economic conditions, such an exit strategy may worsen the worker bargaining power.

Thus the literature is replete with the characteristics of UBI and the ideas supporting or negating it and its implementation covering its overall financial, social and other implications. Moreover, the strand of it being universal and unconditional against one of available fiscal space needing means testing and conditionality; leads to implied trade-offs remaining at the core.

3. Challenges Faced and Country Responses

Over recent years the traditional challenges related to UBI analysis have been supplemented by two fresh major challenges. The first is due to the advent of Fourth Industrial Revolution (Industry) IR4.0; and the second one of COVID-19. The IR4.0 is leading towards diminishing job security, especially among unskilled workers having jobs of repetitive nature. There are various estimates of the likely proportion of job losses at lower end, though some high end jobs would be created in the areas perceived and some never perceived. With the percolation of Artificial Intelligence (AI), expedited by COVID-19 caused the exigencies, the challenge of adverse net impact on the employment rate (of human beings in jobs) is snowballing. This necessitates the need for safety nets, social assistance schemes, and shifts the debate in favour of a non-universal BI. The impact of COVID-19 remains hard hitting, though its advent was much sudden compared to IR4.0 and its exit hinges upon effective vaccinations etc. across the percentiles. Another COVID-19 related challenge that intensified is the issue of frictional unemployment. As economic stability is affected due to shrinkage in demand, its impact percolates and weakens job security, and thus for a worker off and on, in the job market the need to open or close a safety net also becomes more frequent. In a developing country, with employment status of majority of workers not captured on real time basis, it also becomes difficult to put in place safety nets that open automatically when a new spell of unemployment commences. Similarly, even on getting an informal job, the prevailing uncertainty may force a worker not to immediately intimate the authorities on getting a temporary job.

One definitional challenge that UBI faces is whether it needs to be truly universal, or sectoral-specific universal like for all farmer families. To launch it in universal mode and then conjecture a significant fraction not availing it, creates the challenge of how to disentangle the excluded needy from excluded non-needy. Another challenge, especially for the developing countries, is whether the beneficiary unit is each individual or each household/ family, because if the means-testing for coverage is on individual basis, whereas the existing social assistance to be forgone is on household/family basis, the one-to-one substitution mapping would be complex. The mode of UBI being in cash (including through banks etc.) or in kind is yet another challenge from the lens of optimisation of beneficiary utility level. Another challenge is whether to have a UBI that is budget neutral or requiring additional funding. A major challenge emanating from it remains whether the planned UBI necessitates withdrawal of all the existing social welfare and safety net schemes.

To tackle the challenge of poverty Piachaud labels mechanism of a BI as a seriously unwise answer. ¹⁸ Another practical analytical challenge is the lack of sample of treatment group of countries in which UBI has been implemented, thus making it difficult to give much evidence on success of a UBI. Reed and Lansley bring forth ¹⁹ that pilots of UBI being launched in Canada and Europe may reveal some dynamic effects. They caution that as these pilots would have their own limitations, the UK should follow with its own pilot scheme.

The most critical challenge of funding a UBI²⁰ persists to be the additive tax rate required to finance a proposed annual basic income

and the other government purposes, to adequately replace existing transfers. An OECD Paper²¹ covering select OECD countries analyses a BI replacing existing cash benefits for the working age population, sparing people above retirement age, and keeping services like education, health and other in-kind services unaffected. The total expenditure kitty is envisaged to be spent equally as benefits across all who are below normal retirement age. It points out that such BI would be very much lower than the poverty line, whereas a BI set at poverty line would be very expensive.

Yet another challenge is whether the related parameter would indicate at the beneficiary or the aggregate level. Such beneficiary level parameters can be like operation unit (individual or household or family), UBI level, nature (in cash or kind), UBI as proportion of the extreme poverty line faced, decile wise net financial impact. The aggregate parameters (over the beneficiaries or the economy level) may be like inequality level, means-testing criterion (through exclusion principle, inclusion principle, deprivations etc.), aggregate UBI outgo as proportion of GDP / federal (or federal plus sub-national) budget/ social welfare/ social welfare-cum-safety nets; marginal effective tax rates regime proposed, distance to budget-neutrality, Pareto optimality, UBI stoppage and restoration rules and their nature (automatic or by application).

UBI Country Responses

Country responses to adoption of a full-fledged UBI can at best be termed as lukewarm. Most of the responses on UBI are from the government side. World Bank (2020) brings out²² that no country is having a UBI, though several pilots are in place. It adds that Mongolia and Iran have had UBI in place for short periods. Mongolia had implemented it during 2010-12, and Iran in 2011. In Iran, its nature was universal and it covered almost entire population (97 per cent) and provided for one-fourth of the median income. Both countries had an unconditional UBI, paid in cash on a monthly basis and funded by government. A number of developing and developed countries have also run variants or pilot experiments. Of these the developing countries include India, Kenya, Namibia and China

(Macau SAR). Among the developed countries are Canada, Finland, Italy, Korea, Kuwait, Spain and the USA. Kenya has initiated the experiment and covers 6,000 people for 12 years followed by another treatment group almost double of this size. In the case of India, Gentilini et al (2020) point out²³ its rich history of debate, an extension of the cash versus in-kind especially of its near universal public distribution system (PDS). The World Bank also lists out that India has run BI variant experiments at sub-national level which are broadly sector specific (agriculture). Kuwait, Italy and China (Macau SAR) have also run a variant each, being cashbased and state funded. The Italian and Indian variants have a relatively higher coverage of 5 million or more. So far as financing is concerned, Iran in fact replaced its energy subsidies and similarly the Mongolian initiative was built on its resource richness; which was also the basis of the Alaskan sub-national UBI experiment in the USA. In fact, the USA also has four other experiments. On the acid test of Universality most pilots don't hold water, and more or less quasi-universal basic income (QUBI) is adopted, like some sub-national governments in India adopted QUBRI, 'quasi-universal basic rural income'.

In India, at the national level an agriculture sector scheme 'PM Kisan Samman Nidhi Yojana' is being implemented since 2018-19 by covering small and marginal farmer families having combined land holding/ownership of upto two hectares, by giving each an annual income support of INR 6,000 spread over three equal tranches. Under it over 113 million beneficiaries have already been benefitted. It was fast tracked to face COVID-19 by releasing the first tranche during the first week of the financial year in April 2020 itself. Though fully funded by the central government, it is implemented through states/UTs who identify the beneficiary farmer families. Nevertheless, even among farmers within land holding cap, it is not universal. Its exclusion criterion includes certain sections of legislature and political executive at national, state/UT and district level, government officials/certain government pensioners, income taxpayers and professionals.

On the issue of affordability this analysis steers more towards a targeted BI than a truly Universal one. Thus besides the pandemic the major challenges include the IR4.0 led diminishing job security for certain jobs, additive tax rate to fund a UBI emanating from its universality to avoid exclusion or inclusion errors, and the nature of benefits whether in cash or kind, and aggregation issues. Preceding analysis reveals that most country experiments stop short of making it universal.

4. UBI an Income or Transfer Payment

Reich (1991) argues that the principles on which the basic income concept is based are less known, and attempts to specify such principles, that investigate in particular the role of the transaction principle, to derive an income concept therefrom. The crucial point of his argument, emanating from how the concept of national income relates to the income of households, is whether or not it is appropriate within the system of the national accounts to assign any income to other than the households.²⁴ Flagging that, of the 17 Sustainable Development Goals (SDGs) articulated by the United Nations, number one is the elimination of extreme poverty by 2030, Hanna and Olken (2018) arguing about incomes²⁵ compared to the developed countries, point out that in developing countries, governments do not observe income for the vast majority of the population as it works in the informal sector, which typically includes most of the poor. Reich (1991) also argues²⁶ that the national accounts have engendered their own concept of income which is different from other contexts such as business accounting, taxation or welfare analysis. Deriving a concept from transaction principle he adds that the transactions are of three fundamental types, namely, in goods and services with the value in proportion to some product rendered; financial where two equal and opposite claims are coupled and the net financial balance doesn't change; and other transactions that are distributive like wages, interest, taxes, premiums, etc. Notably, nowhere in the three fundamental types of transactions 'transfers' find any place as there is no quid pro quo involved in these.

The NIOS, India on the contrary categorises transfer payments also as a form of income by stating that all the incomes can be grouped into two types of incomes, factor incomes and non-factor incomes. The factor incomes accrue to a factor of production in return for the services rendered to the production unit; and as the production is result of the joint efforts of the four factors of production namely land, labour, capital and entrepreneurship, they get rent, compensation to employees (wages and salaries etc.), interest and profits respectively as factor incomes. Coming to non-factor incomes it further adds that there are certain money receipts which do not involve any sacrifice on the part of their recipients, and no production activity is involved in getting these incomes. These are called transfer incomes merely representing transfer of money without any good or service being provided in return for the receipts. It adds that these incomes are not included in national income.²⁷

It is a fact that by definition any factor income needs to be earned and be part of value addition to goods and/or services during a period like financial year or calendar year. By contrast, a UBI is largely in the mode of government transfer payments, and such form of outgo is without any *quid pro quo* as the government receives no goods or services in return. Thus such a transfer commences from government and remains outside the realm of GDP, GNP and other aggregates. So technically, GDP per capita also doesn't include the transfer payment of UBI, though while assessing monthly per capita consumption expenditure (MPCE) of an individual, these receipts are taken cognizance of and also lead to his effective demand providing command over purchase decisions for goods and services.

All the more there is a lot of analysis on UBI outgo as a percentage of GDP. Paradoxically, in the first place the UBI doesn't constitute expenditure in the system of national accounting (SNA) when aggregating items covered under expenditure (and for that matter income or production) approach. This is inspite of the fact that many of the government expenditure items like administrative set up or defence are counted on 'as it is' basis without looking into economic aspects by

assuming that the expenditure made exactly matches the services received in quid pro quo. But then in many cases the GDP-yardstick is used to make comparisons of economic variables not falling within the realm of current GDP, like market capitalisation of corporate share stocks, and even stock variables like foreign debt, domestic debt, foreign exchange reserves; or flows like international grants; or flows actually partly counted in GDP like trade (exports being part of GDP but imports of the trading partners' GDP). All these are measured in 'equivalent to GDP per cent/ multiple' terms, for better comparisons across countries/ economies. Similarly, though not part of GDP, UBI doesn't remain fully isolated from GDP. Its funding is essentially from GDP and for convenience it can be measured in 'equivalent of GDP per cent terms'. Further, seen from the perspective beyond short-term, the UBI payments bring in purchasing (and savings) power to people who go ahead with consumption, which becomes part of the next period GDP. In turn these build up due to multiplier effect. Likewise, savings component from UBI utilized into investment builds up due to accelerator. Therefore, as not being a constituent of GDP, this paper takes UBI as a transfer outgo not constituting GDP, but use GDP-yardstick to compute it in terms of 'equivalent to GDP per cent', to capture and express its size, notwithstanding the fact that it is not in the nature of factor payments.

5. Universal or Targeted - the Choice and Implications

Most developing countries run social assistance or safety net schemes, based on means-testing to target properly. In this context India had undertaken an exercise of which the economic aspect was focused on to identify and the prioritize households for generic use in targeting them under any scheme. It was called Socio-Economic Caste Census (SECC) and undertaken with 2011 as the reference year. To be precise it adopted targeted criterion for assessing the potential beneficiaries by adopting an automatic exclusion criterion, an automatic inclusion criterion and for the remaining households a deprivation score criterion for prioritisation. The exclusion was for the households having any one of the specified parameters - any member being a government

employee/ earning more than INR 10,000 per month/ being an income tax or professional tax payer, or the household having three or more rooms with *pucca* walls and roof, or having a motorized 2/3/4 wheeler or fishing boat, or owning a refrigerator, or having irrigated/ unirrigated etc. land holdings above specified limits. Similarly, automatic inclusion criterion adopted encompassed the household being without any shelter, or being a destitute/ manual scavenger/ primitive tribal/ legally released bonded labourer. After application of the first two criteria steps, the third step was on the basis of seven specified deprivation indicators. These were having one or less room, *kuccha* walls and roof; no adult member between age 18 and 59; female headed; no able-bodied adult; belonging to scheduled castes/ tribes (SC/ST); no literate adult over 25 years; and landless manual casual labour.

In the context, of UBI, Hanna and Benjamin (2018) ague that imperfect targeting by using various income proxy measures leads to both inclusion and exclusion errors.²⁸ The genesis of propounding a Universal UBI undoubtedly is that it ensures to avoid wrong exclusions at the cost of wrong inclusions. It seems a benevolent idea but there is a fly in the ointment. In order to ensure that each individual gets a piece of cake, and in fact an equal portion of cake, the size of such portion needs to be reduced, necessitating to give up universalisation in favour of targeting. Moreover, in case of a truly universal BI, on the ground some units are likely to be left out from any electronic/physical coverage, howsoever small a fraction these may constitute of, defeating the very purpose of opting a universal scheme. Of course one may not be much concerned about those who voluntary opt out, like the unique Indian successful experiment of 'give it up' by voluntarily foregoing the cooking gas subsidy under the *Ujjawala* scheme- a commendable case of self-exclusion. Still it leads to a complicated problem of how to disentangle a case of voluntary exclusion from a case of a needy being left out. This leads towards the original dilemma, defeating the choice of 'universal' over 'targeted' coverage.

We may here recall the Type I and Type II errors used in hypothesis testing. It categorises an error as Type I if it is a 'false positive' i.e. the error of rejecting a null hypothesis, when actually it happens to be true. And categorises an error as Type II if it is a 'false negative,' i.e. the error of accepting a null hypothesis, when actually it happens to be false. Now, in the context of poverty, let us assume that for the Population H_0 is the state of a unit being poor and H_1 of being non-poor. In fact, such assignment choice can be reversed, which in turn would reverse the type labels. Thus a particular label can be assigned to the choice inflicting more loss. Nevertheless, the underlying fact that exclusion of a true poor causes more harm than inclusion of a false non-poor remains a socially desirable norm, and so also the label that depicts it. In his backdrop, the sample covered under a non-universal BI with errors of inclusion and exclusion out of a population can be manifested as in the matrix in table 1.

Table 1: Operation of a Non-Universal Basic Income (NuBI)

Population	H ₀ Truly poor	H ₁ Truly non-poor
Sample covered under Non-Universal BI		
Assumed as poor	Right	Type I Error: 'false inclusion' as poor
Assumed as	Type II Error:	Right
non-poor	'false exclusion'	
	from poor	

Source: Authors' compilation.

On the basis of this matrix, we assign generic probabilities, as in **table 2**, before looking into any specific example. Here n is the sample size, and its four constituents are labeled as subscripts. Table indicates that p being the probability in the population of being truly poor, and $(1-\alpha)$ probability among them facing Type II error, resultantly $p^*(1-\alpha)$ would be the probability of being harshly hit by Type II error. Similarly, $(1-p)^*$ $(1-\beta)$ would be the probability of being non-poor still 'luckily' being falsely included.

Table 2: Illustration of Individuals getting Transfer Receipts under a NuBI – Total Lump sum Transfer amount being fixed (T)

Population (N)	H ₀ Truly poor	H ₁ Truly non-poor
Sample (n) covered under Non-Universal BI	with p as probability of being truly poor	with (1-p) as probability of being truly non-poor
under Non-Oniversal Bi	Right;	Type I Error: 'false inclusion' as
Assumed as poor	n _{poor truly included} (with probability α among truly poor)	poor; n _{non-poor falsely included} {with probability (1-β) among truly non-poor}
Assumed as non-poor	Type II Error: 'false exclusion' from poor; n with probability (1-α) among truly-poor}	$\begin{aligned} & Right; \\ & n_{\text{non-poor truly excluded}} \\ & \{with \ probability \ \beta \\ & among \ truly \ non-poor \} \end{aligned}$
Total	Truly poor	Truly non-poor

Source: Authors' compilation.

Now as the marginal utility of receipts diminishes; a 'falsely excluded' poor had a lower ex ante Annual Consumption Expenditure (ACE) and so owing to wrong non-inclusion his utility forgone was high. By contrast the same BI leads to a lower utility gain to a falsely included non-poor as he had a higher ex ante ACE. Therefore, on one-to-one basis false inclusion of one non-poor, at the cost of false exclusion of one poor, leads to net utility loss compared to utility due. But at aggregate level there may be various possibilities like say, population's 3 per cent nonpoor's inclusion and 1 per cent poor's exclusion. Now, the net utility gain to population's 3 per cent non-poor may be higher compared to utility loss to (population's) 1 per cent poor, if a falsely excluded representative poor's marginal utility isn't three times or more of a representative nonpoor one falsely included. Therefore, if we assume that utility forgone by a representative falsely excluded true poor is λ times of utility gain to a falsely included non-poor (of course λ being > 1), keeping in view the probabilities in population as in the Table 2, the utility forgone would be $p^*(1-\alpha)^* \lambda$ and utility gain as $(1-p)^* (1-\beta)^* 1$.

Therefore, the net utility change would be $p^*(1-\alpha)^*\lambda - (1-p)^*(1-\beta)$, which lays the separating rule for net utility loss as,

$$p^*(1-\alpha)^* \lambda > (1-p)^* (1-\beta),$$

or, $\lambda^*(1-\alpha)/(1-\beta)^* > (1-p)/p$

The right hand side is essentially the odds ratio of being a poor in the population. So there is net utility loss if the λ times of the ratio of probability of Type II Error to probability of Type I Error, exceeds the odds ratio of being a poor.

As an example if 12 per cent of the population is poor and Type I and Type II errors are 5 per cent and 2 per cent respectively, in a 10,000 population 24 poor would be falsely excluded and 440 non-poor falsely included. In this case the utility loss would exceed the utility gain if, $\lambda^*\{(0.02)/(0.05)\} > \{(0.88)/(0.12)\} \text{ or } \lambda > \{(0.88*0.05)/(0.12*0.02)\},$ or, $\lambda > (0.0440/0.0024) \text{ or } (440/24),$ or, 18.33.

Practically, such a high λ being unlikely, the society as a whole gains, though the very purpose of BI is defeated.

However, we had assumed the basic income to be unchanged over the process, whereas in reality if there is a fixed lump-sum transfer provision T, and thus net extra inclusions may reduce the BI. In the preceding example per 10,000 population out of the 1,200 truly poor, the falsely excluded are 24; and out of the 8,800 truly non-poor, the falsely included are 440; therefore the number of BI beneficiaries rises to 1,200-24+440=1,616, The lump-sum funding would reduce the BI level by a factor of 1,200/1,616 or 0.7426 leading to about 25.74 per cent fall.

As another example, if again 12 per cent of the population is poor, but Type I and Type II errors are now flipped to 2 per cent and 5 per cent respectively, the probabilities would thus be that out of 10,000 persons 60 poor are falsely excluded and 176 non-poor are falsely included.

In this case the utility loss exceeds utility gain if, $\lambda^*\{(0.05)/(0.02)\} > \{(0.88)/(0.12)\} \text{ or } \lambda > \{(0.88*0.02)/(0.12*0.05)\},$ or, $\lambda > (0.0176/0.0060)$ or (176/60), or, $\lambda > 2.93$.

Practically, such a λ is quite likely owing to differential *ex ante* ACEs, so the society as a whole may be losing for $\lambda > 2.93$. Moreover, for the 60 excluded persons (per 10,000) the very purpose of BI is defeated.

However, we had again assumed the basic income to be unchanged over the process, whereas in reality if there is a fixed lump-sum transfer provision T, and thus net extra inclusions reduce the BI, the situation in this example per 10,000 population is that out of the 1,200 truly poor, the falsely excluded are 60; and out of the 8,800 truly non-poor, the falsely included ones are 176; therefore the number of BI beneficiaries becomes 1,200-60+176=1,316. Lump-sum funded BI level would thus diminish by a factor of 1,200/1,316 or 91.19 (indicating about 8.81 per cent fall in the BI receipts).

This factor can be generically computed as:

Genuine BI due for each truly poor is T/ $\{(n_{poor \, truly \, included} + n_{poor \, falsely \, excluded})\};$ But on account of the 'Errors' what he actually receives is T/ $\{(n_{poor \, truly \, included} + n_{non-poor \, falsely \, included})\};$

Therefore, for each poor the ratio of actual amount received to amount due is,

 $\{(n_{poor\ truly\ included}+n_{poor\ falsely\ excluded})\} \ / \ \{(n_{poor\ truly\ included}+n_{non-poor\ falsely\ included})\}$ which in example 2 is (1,140+60) / (1,140+176) or 1,200/ 1,316 as already computed.

These tables and small examples throw ample light on how the things unfold for a developing country. In these examples 12 per cent of population or almost one in eight persons is poor, which happens to be a significant proportion. Errors assumed are small in percentage terms. The probability of being poor compared to being non-poor, or odds ratio is 0.12/0.88 or is 0.136 or less than one in seven. The examples throw

up that 'false inclusion' as poor, is driven by the higher percentage of non-poor; whereas the 'false exclusion' of poor by the low percentage of poor. Therefore, while 'false-exclusion' of a poor has higher infliction as $\lambda > 1$; still out of non-poor a 'false-inclusion' as poor becomes may tilt the balance towards net utility gains. In a nutshell both $(1-\alpha)$ and $(1-\beta)$ become quite critical, necessitating better means-testing to fully harness the gains of selecting a targeted BI over UBI. Therefore, contingent upon the importance that a society attaches to a false exclusion, vis-àvis a false inclusion; the underpinnings of policy choices and resultant interventions emerge.

6. Fiscal Issues and Financial Implications

In case of a government introducing UBI, that too absolutely Universal, and with a significant amount for each beneficiary, the fiscal requirements being product of two large numbers can be enormous. Technically, short of selling assets or delaying repayments on liabilities, the funding for it can either be raised through fiscal instruments like taxation or through closure of a plethora of existing schemes to release much needed funds. Therefore, unless a government can successfully close almost equally fiscally matching prevalent schemes, it needs to have deep enough and ever replenishing pockets to run it. Affordability for any government to run a Universal Basic Income is thus the biggest fiscal issue. Mohanty (2019) argues²⁹ that UBI is a fixed income that every adult, whether rich or poor, working or idle, receives from government, adding that a society's first priority should be to look out for its people's survival. He points out that several experiments/pilots are being currently run across the world, but not yet adopted.

But such scheme closures, especially of the welfare schemes in operation, is a very tough political call for a multiplicity of reasons. First, a number of persons who are already getting benefits exceeding the proposed UBI would oppose it on financial grounds. Second, if its introduction necessitates to enhance taxes, on purely financial grounds all such people on whom the additional tax exceeds UBI received would also oppose it. Third, on moral grounds those who feel that they shouldn't

be covered under it, would oppose it; moreover, some who are needy to some extent may benevolently opt for self-exclusion in favour of more needy. Unfortunately, the implementing machinery may hide behind the fig leaf of such benevolent self-exclusions, if they miss out on a genuine and willing beneficiary. Fourth, even if such a UBI can be hypothetically financed by something akin to helicopter drop of money, it would fuel inflation requiring periodic nominal increases in UBI commensurate with the price index. In fact, on this aspect Correa (2019)³⁰ also argues that the 'helicopter will have to be launched over every cohort of the young and old', adding that the UBI would have, 'an inefficient timetable over time'. Fifth, moral hazard may force labour supply to diminish to some extent, which would reduce growth of GDP and tax collection straining the fiscal space further, while a higher marginal tax rate may dissuade some people from joining workforce. Sixth, in the advent of any national general election, the politico-economic compulsions may force hands of political parties in fray to announce bigger quantum of UBI, or in a sub-national election to announce sizeable top up of the national UBI; resulting into higher expectations, whether honoured immediately or with a lag or forgotten till next election. Seventh, game theory dictates that such a benefit is like a one way valve, as the government can enhance or may suitably substitute it, but can hardly do away with it, thus it becoming a perpetual commitment.

On fiscal grounds, if existing schemes can be closed, one benefit likely to accrue is the savings from expenditure on implementation of multiplicity of schemes. Another fiscal gain is that as UBI can be operated online through DBT it helps in cutting down on leakages, enhancing marginal utility of the amount released. However, the dent of UBI implications on retarding development and maintenance of public goods – both non-excludable and those excludable but provided at below market price- would have an adverse impact on people.

For 2016-17 in India, Economic Survey had computed fiscal implications of the central government schemes, namely central sector schemes (fully funded and implemented by the central government)

and centrally sponsored schemes (fully or partly funded by central government and implemented through state/ UT governments). Towards these the central government's' expenditure was computed as equivalent to 5.2 per cent of GDP.³¹ Authors' computations, for central government's' expenditure for these sets of schemes, compared to GDP for 2018-19 (which later fell in 2019-20), comes to 5.34 per cent.³²

The illustrative computation of the quantum of annual fiscal support needed by India to run a UBI as covered in the Economic survey 2016-17 was broadly on the following lines³³:

- Cumulative probability distribution of consumption in 2011-12 being flat from zero to 45 per cent of poverty, the UBI was chosen to fill up the gap between the threshold of 45 per cent to (hundred percent) poverty level
- Rs. 893 per month at 2011-12 prices was the poverty line needed to be crossed
- It required Rs. 5,400 per year at 2011-12 prices to (fill the gap) and cross above poverty line
- By 2016-17 due to inflation this number had become Rs. 7,620 per year

A quasi-universality of 75 per cent coverage was assumed, which taking the cumulative probability distribution of consumption being flat from about 0 percent of poverty to 45 per cent, necessitated 4.9 per cent of GDP, against the back drop of 5.2 per cent of GDP spent on all the Central sector schemes and Centrally sponsored schemes taken together.

This approach had certain shortcomings. First, if a consumption expenditure equivalent to 45 per cent of poverty line was already prevalent, how was it being achieved by the poorest of the poor, and wasn't it significantly attributable to welfare schemes being run! Second, the pitfall in climbing down to 75 per cent coverage from 100 per cent coverage turns the 'universality' argument on its head. Third, among the 75 per cent covered, what proportion would be constituted by the persons who aren't actually needy; and on the other hand, what proportion of the

actual needy, would not be covered and even not known among the 25 per cent left out. Fourth, withdrawal of benefits from a poor family, at say 45 per cent of poverty line level, may push it down to next to zero level, and the probability of double jeopardy on its being left out among the 25 per cent uncovered could push it towards starvation, as no longer any alternative safety nets would be available. Fifth, along with such removal, the fate of the share of States/ UTs on Centrally sponsored schemes would be a major concern as they can ill-afford to pitch in Centre's share also, and on the other side to what extent they would share the cost of the UBI is difficult to perceive. Sixth, in the new regime how a poor individual would face market prices of cereals which are currently around ten-fold of prices under PDS, which would no longer be continued. Seventh, intra-household issues of providing need based nutrition to children six months to six years, pregnant and lactating mothers divested of ICDS benefits, may not be handled well; and the increased probability of diverting a substantial portion of UBI towards undesirable consumption like on alcohol, apart. Eighth, sudden stoppage of facilities like free universal immunisation, Sarva Shiksha Abhiyan (SSA) would lead to lower probabilities of 'buying' these facilities. Lastly, how a scheme like PMGSY for constructing/upgrading rural all-weather roads would be run once its share of funds is bundled into individual directed UBI package, emerges as yet another critical issue, creating a policy choice chasm between short-term consumption and long-term availability of basic infrastructure.

Now, if for 2016-17 coverage was for the full poverty level equivalent (against the 55 per cent gap from 45 to 100), the amount of the UBI would have been higher at Rs. 7,620*(100/55) or, Rs. 13,855 per year. And in order to also have universal coverage instead of only seventy five percent; the percentage of GDP required would have been 4.9*(100/55)*(100/75) or 11.88 (against a lowly 4.9 per cent assumed by not taking above two factors into computations). Notably, the share of Central sector schemes and centrally sponsored schemes taken together constituted 5.2 per cent of the GDP in 2016-17. Therefore, even if each

rupee spent on all the schemes under both categories is diverted towards UBI, it is computed that these can meet less than 44 per cent of UBI requirements. A Notably, the Economic survey also covers the alternative computations by considering rise in GDP, prices and population, captured as real GDP per capita of marginal poor, leading to a lower UBI level at Rs. 6,540. Therefore, if this modified figure is taken, the nominal level of BI for 2018 compared to 2016 would become Rs. 7,007; UBI financial requirement for covering the entire poverty level on Universal basis at a lower 9.05 per cent of GDP, and the sum of central sector and centrally sponsored schemes forgone now becoming higher worth a shade under 59 per cent of UBI. In a nutshell, the availability of fiscal space steers the course and manner of offering interventions. Further, analysis of an intervention that prescribes closure of some existing benefits can't be carried out without internalising the implications of such closures, especially on the needy and vulnerable.

7. UBI and Multifarious Economic Aspects

In an analysis to capture impact of introduction of a UBI, the multifarious elements like its nature, sources to finance it, and multiplicity of connected economic variables render it complex.

It is apparent that any proposed UBI would face the test of a Pareto optimality, howsoever well calibrated it is. Let us first see it with the competing lenses of various sections of the society from the angle of pure financial gains/ losses. We next widen the scope by adding aspects like other gains/ losses, or errors of exclusion and inclusion, or some rich not minding being additionally taxed so long as the proceeds are utilized on the genuinely poor.

We here take a simplistic example of a single country introducing UBI, and be realistic that though walls against investment flows and profit repatriation are not steep, yet these happen to be so against labour mobility. We further restrict to short term direct effects of introduction of a UBI, alongwith a broad view on some medium term implications. A dig at the long term implications is desisted due to complex nature tethered

Table 3: Likely Impact of UBI on Select Variables in Illustrative Cases

S.No.	UBI Programme Budget- neutral Financing	Impact on rich	Impact on poor	Impact on labour	Impact on savings	Impact on prices
1.	Raising direct taxes on income of top deciles and on profits of Corporate sector	Adverse	Favourable	Short-term supply diminishes but demand rises as more purchasing power	Savings of poor rise but of rich and corporates fall	Higher due to higher purchasing power with
				Medium-term Demand diminishes as exorbitant tax rates force certain rich shift value addition to other countries reducing employment		people having higher MPC
2.	Raising direct taxes on income of top deciles, and on profits of Corporate sector, and raising indirect taxes on luxuries and white goods	Adverse	Likely to be favourable	As above	As above	As above
3.	Raising direct taxes on income of top deciles, and on profits of Corporate sector, and raising indirect taxes on luxuries and Terminating Social assistance programmes	Adverse	Adverse on a lower decile if UBI is short of social assistance forgone; but favourable on a better decile if UBI exceeds social assistance forgone	Lower deciles need to work more; relatively higher deciles need to work more/ less Medium- term Demand may rise / fall, and may force certain rich Corporates shift value addition to other countries reducing employment	Savings of lower deciles fall; of relatively higher deciles rise/ fall; and of rich and corporates fall	on account

Source: Authors' compilation.

to interconnects, for instance impact of UBI on nutrition status would depend on variables like physical capacity, cognitive abilities, propensity to seek work, wage rates contingent upon profits of corporates and other units, labour market flexibility, inflation, non-desirable consumptions, status of women, savings, age distribution, cost of administering UBI and incremental costs to collect marginal higher taxes.

These assumptions facilitate to select a few illustrative cases, as covered in **table 3**. The Table brings out that as a first estimate the UBI doesn't bring in Pareto optimality on incomes. However, in the first two cases when social assistance is not terminated and rich are convinced of the additional taxes on income and luxuries being used for genuinely poor, so long as the additional taxes are nominal a substantial section of rich may draw satisfaction from benevolence, though not all; therefore again rendering it as not a Pareto optimal.

Cash versus Kind aspects

The analysis of cash versus kind uses the word cash in its generic form including direct transfers like through digital mode to the beneficiary's account. Similarly, transfer in kind can be through an assigned public facility, or agent, or by giving some flexibility through choice among many specified agents. Further flexibility can be inbuilt through modes like a coupon which can be presented to a government or a private agent evoking competition for prompt access, quality etc. Similar to the provision of goods like through food coupons, a variety of services like education can also be linked through vouchers giving institution selection option to beneficiary families. A relevant merit of in-kind over in-cash transfers is that these need not be inflation-indexed.

Gentilini *et al* (2020) quote³⁷ Mankiw (2009) bringing out³⁸ that 84 per cent economists surveyed agree, 'cash payments increase the welfare of recipients to a greater degree than do transfers-in-kind of equal cash value'. By contrast Alderman *et al* (2018) argue³⁹ that a programme being in food or cash is not necessarily a determinant of its performance of coverage, targeting accuracy, and a host of other dimensions, adding that

Numeraire (Non-Food NF)

1,100 C

1,000 B

N'

Budget Constraint without food coupon

M'

Budget Constraint with food coupon

Food (F)

O

100

(Not to scale)

Figure 1: Indifference Curves: Transfer in Kind versus Cash

Source: Authors' compilation.

some countries that maintained an in-kind modality managed to improve its performance remarkably.

We know, microeconomic theories like indifference curves indicate under certain assumptions that a person can reach a higher utility level if the choice to select the utility maximising basket of goods and services is left to him.

In the indifference curve analysis depicted in **figure 1**:

A. Prior to introduction of a subsidy

- i. the original budget line BB' sets a budget constraint of Rs. 1,000 (per period). The consumer choice is simplified to buy a combination of Food (F) or *numeraire* representing all other commodities alongwith services bundled as Non-food (NF).
- ii. The underlying public policy intent at stake is that the consumer spends at least Rs. 100 on food, whereas intent of the consumer is to maximize his/her utility by opting the highest possible indifference curve.

iii. In this setting a consumer M (as basket selected) may be already consuming food worth over Rs. 100 (the case of exact food consumption worth Rs. 100 also meets the public policy intent). By contrast, another consumer (N) may be consuming food worth less than Rs. 100.

A public policy choice is to be exercised next by either giving a subsidy of Rs. 100 in kind or cash. To implement it, a food coupon worth Rs. 100 may be given to ensure desired minimum food consumption (assuming no arbitrage by selling the coupon for cash). Alternatively, a cash subsidy of Rs. 100 is given raising the budget line to Rs. 1,100 (CC').

B. After introduction of subsidy in kind or cash

With cash subsidy the consumer M may opt for M' by increasing her food and non-food consumptions, or M" by increasing non-food consumption, but reducing food consumption (treating it as an inferior good), though still keeping it above Rs. 100.

With cash subsidy the consumer N facing BN"C' line kinked at N", may reach N' by increasing both consumptions but still falling short of Rs. 100 food consumption, or N" by raising the food consumption to the kink and meeting the policy intent (or increase food consumption to above 100).

Therefore, the situations like N and N' necessitate food subsidy in kind. This ensures N to have a food consumption of 100 or more. Though with cash subsidy she could reach N' raising her utility, an option foreclosed by subsidy in kind. But even with subsidy in kind, the utility gap can be reduced by going beyond calorific needs by including say, protein rich items like pulses.

Savings and Investments

On the front of savings and investment OECD (2014) points⁴⁰ out that household disposable income is the sum of household final consumption expenditure and saving components and the rise in both are desirable. While the former stimulates GDP growth, the latter permits the partial financing of investment and eases the burden on the social security

system. It suggests economy's capacity to achieve productivity gains through more efficient use of the labour and capital factors of production to enhance household incomes.⁴¹ Of course a holistic view is required to ensure long-term synergic growth.

Inequality

The UBI by design provides equal receipt to each person. Therefore, the ratio of income of a person in the lower decile to of a person in higher decile automatically falls. This reduces value of any inequality index that fulfills the principle of relative income, which in essence is that an index remains unaltered on transforming all incomes by the same multiple/ fraction. This is so far so as the receipt side is concerned. Coming to the financing side of UBI, if it is through the progressive additional taxes on rich or on luxury goods, the income ratios fall somewhat further towards the side of unity, thereby, further reducing such inequality index. Alternatively, if rich are out of the list of beneficiaries of a tweaked UBI (in fact only BI by virtue of not being universal), and yet subjected to pay the additional taxes imposed, the fall in inequalities measured through such an index would be even more – a desirable social outcome in line with SDG 10. But in case the tax rates become unduly high, corporates may shift economic activity to other countries, backfiring the ex-ante policy intent.

Public debt or Government Bonds

If a government takes recourse to the fiscal instruments of deficit financing or floating of bonds to raise funding for UBI, still these create public debt to be paid in next periods. Repayments and interest payments of this mode would weaken the government's capacity to sustain UBI in periods to come.

In totality, various facets and interconnects among economic aspects of a UBI against a targeted intervention throw up implications on various variables and need to be further analysed. Household utility implications of cash versus kind choices and how variables like savings, investments, inequality and public debt/ bonds are impinged upon are equally relevant. Such a course can add gravitas and lead towards a reason based way forward.

8. Way Forward and Conclusions

Universal Right to Basic Skilling Opportunities

A universal right to skilling opportunities is proposed to be granted to facilitate employability and employment of poor and vulnerable. This investment in human capital would be value for money for the society, and in fact a more lasting one. Besides tackling poverty, inequality etc., this right would also push up the GDP growth rate. Among other synergic gains would be to put the economies on trajectories to timely attain SDGs.

Ideas to 'UPLIFT' and 'LOCATE' uncovered

It emerges that while UBI is universal, a targeted approach is apparently based on some means-testing. Before revisiting options available for the criterion of means-testing, we may look at a couple of related examples. Let us take a cue from how means-testing is not required for providing the benefits in a free eye camp. Such a benefit automatically attracts only a genuine needy, may be the one needing a cataract operation which he can't afford. Obviously, it is of no use for a non-needy, who may at the most go for his free eye-testing to reassure that he doesn't require the benefit. Therefore, beauty of this benefit is that though it is offered universally, still it auto-selects the genuine needy. Moving away from a free benefit, another example is of say, a meal facility provided by a community kitchen, for which some amount below market price is charged and a hygienic, nutritious and hot meal is served. The non-needy, who may make money from arbitrage by selling it at a mark-up, are kept at bay by not permitting take-away option and by providing sitting facility, washroom, etc. to all customers who turn up. Among the genuine needy it auto selects such persons who can afford the reasonable price charged and can physically reach the facility. This benefit is universal and minimally conditional but not free. In the short-term meal price can be kept nominal, to facilitate more people among needy who can afford to pay only a nominal amount. In the medium and long-term it can be run by charging say, variable cost component to customer, while government bears the fixed cost component, a model which can be sustained and scaled up benefitting more and more needy over time. To provide benefit to a genuine needy who can't afford it, a generic safety net can continue giving such needy adequate affordability to avail it. By contrast making it free and allowing take away option can sky-rocket the demand, leading the scheme to collapse and disproportionately harm the genuine needy. In a nutshell, such a benefit which is universal, not free and conditional (no take-away) can also be operated through auto-selection by needy. Obviously, with such a sharpened automatic means-testing it doesn't entail to do any 'policing' to impose exclusion, inclusion and deprivation criteria. The idea to sharpen it is not to reduce its financial outgo, but to target the genuine needy in order to give them a reasonable support and scale it up for wider coverage of many more needy.

Notably, in general the need of a means-tested targeted programme is much justified over UBI as World Bank (2020) also indicates that for Nepal and Mozambique, a transfer equal to the average distance of the poor from the poverty, requires a high 7 and 20 per cent respectively in GDP terms.⁴² In the light of above it is clear that our basic objective of targeting is to help needy poor and vulnerable. This process shouldn't essentially be a two stage one: to first segregate needy from non-needy and then target the former. As a single stage the novel approach suggested here is to modify a benefit in such a manner that it fairly auto-selects needy from non-needy. To offer it universally, options to be exercised can be a nominal charge, or a nominal charge and some effort, or only some effort. An effort close to the wages paid as a quid pro quo can be run in the manner any job guarantee programme like, Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in India, is operated, and auto selects needy while being universal at least in rural areas. In fact, the option of only a little effort can be offered to such needy who can't pay at all and are not covered under any safety net. Some other schemes, though not universal or unconditional or in cash, like school feeding programmes that foreclose possibility of any arbitrage can also be similarly run. This auto-selects school going needy children; and can also be intensified in nutrition, beyond mere calories, that too by using a part of funds not required to run a UBI. Such inbuilt efforts entailed can be like, helping a child (not belonging to one's own household) by dropping and picking him back from school or nutrition centre; or by mentoring in studies or sports. Therefore, in totality the benefit offered should be much consequential for a needy, with inbuilt higher likelihood of being fairly picked up by him over a non-needy. We may, therefore, make such a benefit universally available and call it 'Universal Programmes with Likelihood Inbuilt to Fairly Target' (UPLIFT).⁴³ In a nutshell, an economical alternative to a UBI is to run such universal interventions that are much likely to be availed by genuine needy and can be categorized as UPLIFT.

A related issue is to locate the needy who are not covered and inadvertently excluded due to factors like limited outreach of implementation machinery, or lack of awareness on the part of needy, or not having a mobile phone or internet though aware and willing. For instance, Guven and Leite 2016 point out44, up to 30 per cent eligible elderly persons being left out from pensions in 22 African countries. While undertaking UPLIFT approach, one important aspect to be thus taken care of is to help locate all genuine needy who are left out so that no targeted person remains wrongly excluded. This enabling effort can be termed as 'Look Out to Cover All Targeted but Excluded' (LOCATE). 45 In this endeavor electronic inclusion can help a lot especially if a drive is launched to open bank accounts for financial inclusion of hitherto excluded. For them a mission mode LOCATE initiative can remarkably enhance coverage. In case of UPLIFT approach, the social assistance set should nevertheless continue. Moreover, it should not dissuade a basic freedom like stoppage of a pension to a widow or of assistance to a single woman on remarriage/ marriage, as it comes in the way of her personal life or forces to suppress the fact of remarriage/ marriage. A better policy plank for her can be to provide a universal right to skilling opportunities, motivate to avail it, earn an income and voluntarily forego the benefit, on the credible assurance that it would automatically resume should the need there be. It is relevant here to point out that on labour market participation in Argentina, as the universal child allowance is sectoral that too on the condition of a parent being unemployed or in informal sector, Bastagli (2020) argues that it dissuades such a worker from formalisation of employment.⁴⁶ The right to skilling can be much useful here too, with the credible option of the resumption of allowance on losing the job again.

We may now analyse how some of the social assistance programmes run in developing countries to crystallize more ideas. In Haiti a social assistance tool adopted is scholarships for students, being sectorally universal, conditional on being a student, and provided in kind. Mozambique adopted a Basic Social Subsidy Programme (PSSB) for poor households. Nepal opted for public sector pensions, social security allowances, scholarships, child grants, maternal incentives, oldage, widows, single women, disability, endangered ethnicities pensions, health subsidies, and public works.⁴⁷

Obviously, from the angle of replication many of these programmes are not absolutely universal, but targeted. Scholarships, child grants, maternal incentives, assistance to old-age, widows, single women, disabled, endangered ethnicities, and health subsidies largely attract needy, and are difficult to arbitrage. Any Public work demands an effort in *quid pro quo*. Pensions though in cash, are sectoral in nature and mostly attract by auto-selecting needy. This leaves only the subsidy for poor households and social sector allowances creating difficulty in auto-selection and being subject to exclusion and inclusion errors. Some programmes facing difficulty in being auto-selected can be suitably tweaked by adding an element of effort for higher preponderance of auto-selection. As an example, to build in an auto selection in a \$ 3 a day free transfer programme, a government may modify it and run it as a \$ 4 a day programme with a \$ 1 a day *quid pro quo* effort contribution, towards which mostly genuine needy would be attracted.

Indonesia adopted cash transfers for poor and at-risk students as the Program Keluarga Harapan (PKH)⁴⁸, a conditional cash transfer programme for households. While being an initiative for at-risk students

it has an element of auto-selection. In Argentina in 2016, against a child allowance (sectorally) universal in nature, 1.5 million eligible children were left out due to their own or parents not having an ID or a link mismatch among them or issues in children's school enrolment verification.⁴⁹ In the context of better outreach for instance in Brazil over a million families from indigenous and riverine populations were added in 30 social programmes including Bolsa Família (income below eligible threshold) conditional cash transfer (CCT), besides adding another half million eligible families. 50 Social assistance programmes, not necessarily free, have been increasingly diligent in tackling the issue of outreach with a host of initiatives in many countries. As another example, in India MGNREGA programme is universal in nature (within rural areas) and doesn't require any means -testing (of livelihood/income/ wealth/ assets etc.) to be eligible. The nature of the benefit being to guarantee 100 days unskilled work to a household in a financial year, it automatically excludes those having means like more remunerative livelihoods not necessitating this nature of work.

In order to face COVID-19 led economic distress Government of India launched Garib Kalyan Rozgar Abhiyan (GKRA) in June 2020 to facilitate employment to returning migrants by harnessing their skills, and in the process to create infrastructure for rural areas. In order to focus better, the districts with over 25,000 returnee migrants have been covered. Administratively the Ministry of Rural Development (MRD) is assigned this task, with its experience of running MGNREGA since its inception. It is an INR 500,000 million umbrella initiative, comparing well with MGNREGA which has around double of it as (enhanced) budget; and aims to reduce hardships of returning migrants. An issue sometimes raised about MGNREGA is as to what extent it is catering to the needy poor, or else whether the States with better implementation machinery are able to corner an unduly large share. By design of being universal (in rural areas), and an income but not a free transfer, it meets the requirements of needy who aren't gainfully engaged and ready to work. On the extent of covering needy, there is a computation limitation as the poverty level data is available for only upto 2011-12. An analysis carried out for this Paper shows that the coefficient of correlation between the state wise number of person days generated under MGNREGA and 'Total Rural Population' as per 2011 census, was a high 0.53, for which person days for 2013-14 being available on the MGNREGA website were used.

These interventions favour auto-self-selection by the needy and do not require anyone eligible to undergo means-testing. So by nature such interventions can be made universal by in-built design attracting mostly the genuine needy. Such other interventions in India are umbrella integrated child development scheme (ICDS) for children six months to six years (including a provision of take home rations –THR, for children six months to three years and for pregnant and lactating mothers); mid-day meal scheme (MDM) for school children; community kitchens; health for all; and universal education for all. These spurred on the universal 'Right to Skilling Opportunities' proposed here, can help pull poor above the poverty line on almost permanent basis.

There can be a subset of needy and vulnerable like disabled/ old-aged who can't work, or widows who can't leave the family responsibilities to go for work. Therefore, in India among the poor those who are disabled, widow and old aged; are given monthly benefits by the Government under national social assistance programme (NSAP), which are topped up/ covered by the States/UTs schemes (40 million plus covered in all by Centre and States/UTs). As towards these interventions wrong inclusion is difficult, these qualify to be made more intense by raising the level of assistance which should further be linked to price index.

In these schemes the endeavors of financial inclusion through the trinity of JAM (*Jan Dhan Yojana*, Aadhaar identification, and Mobile telephony) have helped a lot in India and similar initiatives in many other countries, and qualify as best practices for consideration across remaining developing countries.

Crux of future course of action is to sharpen the targeted interventions to dissuade non-needy from availing these. Inbuilt

mechanisms to attract needy can help to largely segregate them from others. This can help in keeping financial implications within the available fiscal space.

Conclusions

The enormity of fiscal implications to run a UBI, which is truly Universal, and ensures adequate and absolutely free transfers, can't be denied. Game theory dictates that once introduced in such a form, it can't be rolled back, and if modified with acceptable substitutes, would still remain a long-term annual commitment. Moreover, its nominal level would need to be linked to inflation to maintain it in real terms. In case, it is made budget-neutral it necessitates closure of all or most social assistance schemes, a step unless undertaken from the word go is almost impossible to impose later. Even if made budget-neutral a Pareto optimal UBI can hardly be conceived. In theory a UBI can have specific benefits, like it can check against non-exclusion; it reduces inequality as measured by indices like that hold the principle of relative income, by measuring only relative income ratios. However, closure of social assistance schemes to run a UBI can lead to graver hardships for many needy. Moreover, some of the schemes creating benefits that can be passed to coming generations may no longer be available, hampering achievement of SDGs. An economical alternative to a UBI is to run better targeted interventions that can be categorized as 'Universal Programme with Likelihood Inbuilt to Fairly Target' (UPLIFT), and are enabled by efforts like 'Look Out to Cover All Targeted but Excluded' (LOCATE). These interventions favour auto-self-selection by the needy and do not require to undergo any means-testing to make anyone eligible. So by nature these can be made universal but attracting only the genuine needy. To these should be added the Opportunity to avail the Right to Skilling to pull poor above the poverty line on permanent basis. Such a bouquet of interventions can help achieve the policy intent to adequately help needy, keep them out of poverty and in turn fast track attainment of SDGs. Therefore, the critical set of conclusions includes flexibility to opt for a choice based on the contextual interventions to UPLIFT enabled by LOCATE, as introduced in this paper and underscored above. In essence, synergising the choices of universality and targeted interventions, a practical mode to make benefits targeted towards needy, though offered universally, is put forth as a plausible option. Therefore, universal and targeted no longer remain the two mutually exclusive choices, and a third synergic alternative is evolved to offer freedom to adopt a universal yet affordable choice.

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