Vol. 1 |No.1| May-June 2019

G20 Digest

– Pursuit for G20 India 2022 Presidency

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Published in 2019 by:

RIS
Research and Information System for Developing Countries
विकासशील देशों की अनुसंधान एवं सूचना प्रणाली

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Vol.1 | No.1 | May-June 2019

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EDITORIAL

Can It Be Different This Time?

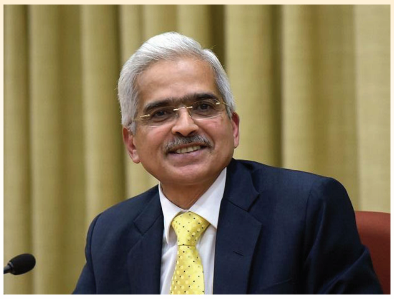
Japan is all set to host the G20 Osaka Summit on June 28, 2019. Like past summits expectations are high on the future course of G20 that Osaka Summit would envisage. Many have been criticising G20 as a club; not truly functioning as an inter-country organisation. On the other hand, other schools of thought dismiss those criticisms and visualise a greater role for G20 in the coming years as a unique platform for addressing contemporary global issues that equally affect the North and the South. Interestingly, G20 has already marked two decades of its existence, most remarkably the completion of one decade of the G20 Leaders' Summit.

As it appears, G20 is gaining importance as a global platform for articulation of issues, opportunities, concerns and challenges that the world is confronting now. A neutral judgement on its functioning after a decade of leaders' summit probably suggests that G20 has gone a long way in terms of coverage of issues, scope of country engagements, rise of emerging markets, voice for fair representation of emerging markets and developing countries, reform of the multilateral institutions, development of target pockets of underdevelopment e.g. Africa Compact, and so on. Successive G20 Presidencies have defined new courses of engagement for the member states and have tried to shoulder as much global responsibility as possible. It is left to the best judgement of the thinkers and wider intelligentsia to reflect upon the role, relevance and effectiveness of G20 as a global platform.

In order to generate informed debate and promote research and dissemination on G20 and related issues, this journal of RIS called G20 Digest is an endeavour in that direction. In this inaugural issue, we attempt to cover the broad contours of G20 process with select articles which touch upon the analysis of G20 summit declarations, importance of changing the financing models for achieving sustainable development, and leveraging science and technology for development. This issue also covers the views and opinions of former G20 Sherpa of India and some important news appeared globally relating to G20.

Long Live G20 !

Key Win at G20 was Mention of Action on Economic Offenders: Shaktikanta Das



[The two-day annual G20 meeting, held at Buenos Aires this time, ended with most issues rattling the world economy still unsettled. India, however, managed to get its concerns on double taxation of migrant workers for social security included in the final communique for the first time. ***Subhomoy Bhatacharjee*** caught up with **Shaktikanta Das**, India's sherpa at the forum, for his views on the outcomes. (Das has since moved on to become Governor of The Reserve Bank of India)]

Excerpts:

In light of the meagre result of the Buenos Aires summit some commentators have called to abolish the G20. How do you assess the commentary?

This is not the first time, this question was also raised post the Hamburg summit last year. It was argued that since the great crisis of 2008 is over, is there a room for a body like G20 to continue. Yet as we can see, G20 has been facing one crisis or another since 2008 like the Eurozone crisis, the taper tantrums and now the challenges on trade. It provides the broad political directions that would not have been available otherwise for all these crises. I would say the Paris Agreement on climate (at COP 21) was also partly fuelled by this forum. The IMF quota reforms got delayed and would have taken much longer if not for the presence of G20. On trade for instance, G20 has recognised the role WTO has to play; the trade body has got stymied for the past 15 years which needs to end. Would you say that as an informal arrangement G20 competes with other world bodies, I don't think so. It cannot and should not replace the work of other organisations like the WTO. G20 has to in fact play a larger role.

On Trade India has felt often stymied at WTO. Is there a possibility that if trade issues come up in a big way in G20, it could run the fate of WTO?

On trade it is our view that the Doha Agenda should first be completed before other issues seep in. Those has to be done by the trade ministers. G20 only gave the message, a broad message that let us reform the WTO. In the communique this time, some of that concern are reflected. All the stakeholders from multilateral organisations sit around the table with the country leaders at the G20 meeting and that helps to single out concerns.

India had some specific demands at G20 . To what extent were these reflected in the final commentary?

Among our key concerns, the first was on totalisation agreements. These agreements protect the pension and other benefit rights of workers who divide their working career between more than one country. This means they cannot be taxed by both countries to make contributions to social security pool. The communique says the social security contributions should be portable. So if India has offered, say, an EPF scheme, the G20 acknowledges it should be recognised by other countries to where Indian workers go for employment. It is a force multiplier for our negotiating position on bilateral agreements.

Similarly, there is an explicit recognition of the role of traditional medicines beyond our borders. But of course the big one was the mention of the concerted action on fugitive economic offenders. It required a lot of work from our side to get it in. The European Union had a different position on this issue and we had to explain how this could undermine global financial architecture.

The other was the recognition that countries should fulfil their climate finance commitments which was flagged by the Prime Minister of India Shri Narendra Modi.

India has linked its hosting of G20 to its 75th year of celebration of Independence. How does the GOI plan to connect the two?

It is about the signalling. It is an occasion for all world leaders to visit India on the 75th anniversary of the Independence. India can showcase them the strength of our democracy, our model of inclusive development.

There are calls to expand the membership of G20 to African countries beyond South Africa. How do you reflect on this demand?

It was not on the agenda. OAU has a presence on the G20 table. It is a concern though whether the deliberations would improve with a larger membership, I am not sure. G20 came up in the background of the financial crisis to bring together the economies that roughly constitute 80 per cent of world GDP. The focus was on economic and specially financial issues and that accounts for its present structure. Else it would be a repeat of the UN. But meanwhile Germany has begun a programme 'Compact of Africa' under the G20 rubric. It is gathering pace.

(A smaller version of this interview appeared in the 'Business Standard' on Monday, December 10, 2018) (https://mybs.in/2VsGSrl)

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Evolution of G20 Process: From Crisis Management to Development Cooperation

Priyadarshi Dash*

Prativa Shaw**

Akansh Khandelwal***

Abstract: With two decades of functioning, G20 Process seems to have matured with much wider scope of engagement among the member states. G20 Summit Agenda has diversified from a finance focus to hard-core development issues. While it is being viewed as a welcome step by the global community from the perspective of an alternative forum for deliberations on common issues affecting the world, there is suspicion over the legitimacy, ownership and effectiveness of G20 commitments by the member states and the third countries. The article discusses the evolution of G20 Agenda in that spirit.

Introduction

Inter-country groupings and regional economic communities (RECs) have been integral parts of global governance in the post-war period. The critical areas of contributions of these entities were often manifested in building coalitions among the like-minded countries or countries of similar development characteristics on regional and global issues particularly trade and investment promotion, poverty alleviation, job creation, heath and education, environment protection, climate change, social inclusion and other mutually-beneficial development concerns. Most of these multilateral and regional platforms have attempted to articulate aspirations of the regions or country groupings which were either not effectively addressed in existing institutions of global governance like the United Nations (UN), International Monetary Fund (IMF), World Bank, etc. or demanded special attention. A wild retrospective assessment would rather suggest that country groupings like G7, G20, G77, Non-Aligned Movement (NAM), G77, BRICS, IORA, NAFTA, ASEAN, EU and similar organisations have contributed to global governance in manifold ways along with establishing their unique positions on certain issues.

In that parlance, G20 seems to have gathered more attention in recent years than any other inter-country organisations in the world even though it does not have any legal status yet despite being active for the last two decades. Having a unique membership composition involving both developed economies and emerging markets, G20 appears to be quite ambitious in its mandate and coverage of

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issues. It, therefore, requires a systematic understanding of the evolution, genesis, mandate, agenda setting and expected outcomes of the G20 process.

In this context, it is interesting to recall the emergence of minilateralism in the 1960s. The impression of minilateralism[1] had emerged in the early 1960s when a group of administrative officials and ministers gathered to address the most urgent needs of global economy in those days, based on informal relationship rather than on a formal set-up for rule-making. After the World War II, policy coordination, global economic governance and regulations were controlled by a number of small networks outside the ambit of formal global governance institutions. In the 1970s, after the breakdown of the Bretton Woods exchange rate system, global stagflation and subsequent oil crisis in 1973, major industrialised economies started meeting at the level of Heads of States for discussion on economic and financial issues among the major industrial countries.

The lack of coordination mechanism in the formal governance system—the UN Security Council, the International Monetary Fund (IMF) and the World Bank caused the emergence of such small groupings. The first in this series was Group of Ten (G10)[2] that was established in 1962 by Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, the United Kingdom and the United States with Switzerland as an associating country (Shome, 2014). This group of countries participated in the General Agreements to Borrow (GAB), a supplementary borrowing arrangement of the IMF.

The Group of 7 (G7) was established in 1975 by Canada, France, Germany, Italy, Japan, United Kingdom and the United States at the level of Finance Ministers and Central Bank Governors. The Finance Ministers and Governors met semi-annually to monitor developments in the world economy. These groups had emerged to cope up with the new global challenges of economic and financial stability in the major industrial countries. The objective of this informal minilateralism was to improve the mechanism of global economic collaboration to effectively address macroeconomic instability. The expansion of G7 to G8 including Russia became the global steering committee through the 1990s when a series of market crises hit the global economy. In September 1999, the Finance Ministers and the Central Bank Governors of G7 announced the broadening of G7 mandate for preventing future financial crises. Seven countries (G7) announced their intention to "broaden the dialogue on key economic and financial policy issues among systemically significant economies and promote cooperation to achieve stable and sustainable world economic growth that benefits all." This announcement marked the official birth of the Group of Twenty (G-20).[3] Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom, the United States and European Union are currently the members of G20.[4]

G20 hosts 20 leading economies of the world accounting for 85 per cent of the world's economy and over two-thirds of the world population. It periodically holds summits, meetings and deliberations involving the Heads of the member states, Finance Ministers and the Central Bank Governors including the G7 and the European Union which is represented by the rotating Council Presidency and the European Central Bank. The Managing Director of the IMF, President of the World Bank, and the Chairs of the IMFC and the Development Committee also participate in G20 meetings on an ex-officio basis. The G20 'Sherpa'[5] meets once a year to discuss macroeconomic policy, financial regulation, trade, development and environmental issues, regional security and governance matters, and reform of international financial institutions and other multilateral institutions.

Since G20 asserts influence in global policy-making and mobilise public opinion on various facets of global economic governance, this article attempts to review the evolution of G20 as an international institution in terms of coverage of sectors, issues, approaches to agenda setting and the role of different presidencies. It also tries to assess the functioning of G20 in terms of 'finance track' and 'development track' drawing inputs from the last three Leaders' Summit Declarations[6].

Agenda Setting and Sectoral Coverage in G20

G20 agenda has broadened and deepened over the years. While the first decade of its existence was at the level of Finance Ministers, the issues covered in the G20 meetings were essentially related to finance and macroeconomic stability. Unlike that phase, the G20 agenda has diversified significantly in the second decade at the leaders' summit level. Although financial crisis-related issues continue to occupy maximum space in G20 leaders' summits held during 2008-2018, a good number of development issues gradually assumed attention in successive summits. The widening of G20 agenda provides mixed signals about G20 and its global relevance. While passionate coverage of development issues like food security, women empowerment, migration, urbanisation, etc might situate G20 as a responsible global institution in the realm of global governance, sceptics might interpret it as 'no man's organisation' due to lack of focus. In fact, many studies view that G20 communiqués were dominated by the G7 preference and other non-G7 countries were silent and neutral (Shome, 2014). Against this backdrop, it is necessary to objectively assess the evolution and scope of G20 agenda in terms of select broad themes including finance, trade & investment, technology, development and social sectors.

Finance

The major task before the G20 in the first three Leaders' Summits (2008 to 2010) was to identify suitable monetary and fiscal policy responses to the global economic recession 2008-2009 and ensure macroeconomic coordination among the advanced economies and the emerging markets to restore global growth and stability. The Summit Declarations during 2008-2010 listed the measures that were suggested to prevent persistence of the downturn and announced fiscal stimulus packages to boost aggregate demand. The 2008 Washington Summit called forth mechanisms to stimulate the economy, provide liquidity, reforming the financial institutions for strengthening market transparency and reinforcing international cooperation. In addition, certain reform-oriented actions were undertaken to enhance adherence to sound financial regulation. Global credit rating agencies took adequate steps to improve accounting standards in the affected economies. Proper guidelines were formulated for banks and financial institutions for reassessing risk management practices. This phase marked the prioritisation of immediate short-term and medium-term remedial actions in the areas of finance, trade and investment.

The financial crisis led to severe collapse of economic activity and job losses. Hence, massive fiscal expansion was warranted as an immediate macroeconomic policy intervention. This typical Keynesian solution reflected the fiscal policies of the inter-war period aiming to restore economic stability in the world.

G20 also called forth for immediate reforms of International Financial Institutions (IFIs) in order to promote integrity and stability of global financial markets. These measures included reviewing the valuation and leveraging process in operationalising banking activities; anticipating potential stresses; expansion of Financial Stability Forum (FSF) to Financial Stability Board (FSB) to integrate regulation and supervision into macro-prudential policy and revision of lending instruments of IFIs. To boost global economy, G20 members committed to allocate USD1.1 trillion for IFIs for trade financing and USD750 billion to IMF in 2009 London Summit. Further, IMF resources were expanded through immediate financing of USD250 billion which was to be subsequently increased up to USD500 billion through introduction of New Borrowing Arrangement (NBA).

With strong signals of recovery in the affected economies, the focus of G20 members gradually tilted in favour of promoting economic activities (particularly accelerating growth in low income countries), job creation, and building resilient financial system. In this context, it is worth highlighting certain issues which were deliberated in the Seoul Summit. The Action Plan envisaged in the Seoul summit was comprehensive and cooperative, and aimed at country-specific policy actions focused on measures for fiscal consolidation, enhancing exchange rate flexibility, and range of structural reforms in order to replenish global demand. The Seoul Summit also came up with flexible Small and Medium Enterprises (SME) financial framework, access to financial services and strengthening global financial safety nets. It also aimed for innovative financial inclusion by developing a set of principles for it.

The summits, in their endeavour to be farsighted and provide sustainable solutions through international cooperation, announced various measures to be achieved in medium term. G20 agenda stressed on financial regulations like registration of credit rating agencies, liquidity supervision of central and other banks, and strengthening integrity of financial markets in tackling illicit financing (like money laundering, terrorist financing, etc.). Summits (2009, 2011, and 2012) also pressed for rigorous surveillance of financial sector assessment program of all countries by IMF and the World Bank. Leaders also stressed upon measures to promote tax information exchange in order to address transparency issue. Since 2008, G20 leaders have stressed on reforming the Bretton Woods institutions in order to capture the dynamics in changing global economic environment and effectively address future challenges by providing level playing field for the developing economies.

'Finance track' on G20 continued its efforts to regain macroeconomic stability, and building resilient financial system for rebuilding the trust again. In 2010 Seoul Summit, the launch of Global Partnership for Financial Inclusion (GPFI) was announced to provide an inclusive platform for all G20 and interested non-G20 members in order to facilitate financial inclusion and implementation of the Financial Inclusion Action Plan. The subsequent summits have focused on strengthening monitoring, increasing transparency, debt sustainability and promoting market integrity and address the issue of "too big to fail" financial institutions and firms. The agenda for finance broadened by scaling-up and diversifying the Multilateral Development Banks (MDBs) funding into infrastructure from 2011 and lately emphasizing on debt transparency, sustainable financing practices by borrowers and creditors, both official and private. The St. Petersburg Summit leaders vowed for greater IMF quota and governance reforms but because of procrastinating attitude progress was limited till 2017. With expanding scope of technology and digitization, G20 has shown commitment to promote digital financial services. To concretise the commitment, G20 High-Level Principles for Digital Financial Inclusion was launched in 2016 China Summit.

Trade and Investment

Adherence to free market principles and open trade & investment commitments were hailed as a necessary precondition for improving the living standards of the people in the past G20 summits. This was enshrined in the 2008 Washington Summit declaration in which members were urged to refrain from raising new barriers and export restrictions for the upcoming year, and promote free trade and investment along with building consensus for reaching agreement on the WTO Doha Development Agenda. To concretise the commitments further, the 2009 London Summit announced USD250 billion of support for trade finance. Financial and trade protectionism were thus regarded as antithetical macroeconomic policy options for growth, especially for the developing countries. In that paradigm, the WTO and other multilateral institutions gave primacy to monitoring any aberrations from the set mandate.

G20 summits have been committed to anti-protectionism and liberalization policies since inception in order to promote free trade and investment. The central mandate of G20 has been to safeguard the multilateral trading norms and regulations as highlighted in the very first Leaders' Summit in 2008. Although, at present international cooperation is low due to mounting trade war, stalled global trade talks and the questioning of the effectiveness of global institutions, G20 continue to propagate healthy trading relations among countries. In fact, the subsequent summits have highlighted the opportunities for higher trade and value addition emanating from spread of Global Value Chains (GVCs).

In the initial three summits, the endorsement of Doha Development Agenda, strengthening MDBs for trade finance, encouraging financial products and services and providing aid-for trade to developing countries were the integral parts of the G20 deliberations. During the Cannes Summit, focus was shifted to improve the effectiveness of agriculture market and thus launched two major initiatives - Agriculture Market Information System (focuses on four products such as wheat, maize, rice, soybeans to improve the quality, reliability, accuracy, timeliness and comparability) and Global Agricultural Geo-Monitoring Initiatives (i.e. collecting data on weather forecasting for enhancing productivity). Meanwhile, the global leaders committed them to mitigate the risk of price volatility and remove food export restrictions or other taxes for non-commercial or humanitarian-based trading. Likewise, the Cannes Summit gave priority to food security, infrastructure, mitigating humanitarian crisis; facilitated the action plan on food, water and agriculture; mobilized funds for development, and put emphasis on risk management mechanism in agricultural policy in Africa.

Some pertinent issues like climate change, trade protectionism, trade finance, sustainable global supply chains and global financing for development cannot be handled solely and need strong and successful international collaboration. Keeping abreast of the changing global economic conditions, the 2013 summit emphasised on the importance of developing comprehensive understanding of GVCs and its consequent impact on growth, development, industries and job creation. Further highlighting the importance of GVCs and emphasis on trade in parts and components, the subsequent summits stressed on the need for greater participation of SMEs in GVCs, especially from the low income countries. In the context of emerging importance of GVCs, focus on trade in agriculture was also observed marking a shift from initial focus on subsistence issues like removal of food export restrictions, and enhancing market information and transparency to upgrading agro-food global value chains (2018 Summit).

G20 Leaders urged the World Bank and the MDBs to promote favourable environment for trade and investment and build capacity to boost green investment and investment in clean energy, especially by providing support to developing countries. In Cannes Summit in 2011, emphasis was given to transparent physical and financial energy market. To put forward the mandate, G20 Dialogue Platform on Inclusive Green Investments was launched in 2013 summit for sustainable development and combating poverty. Similarly, targeting the developing countries, investment in infrastructure was given thrust and the High Level Panel on Infrastructure, and Global Infrastructure Initiative were initiated.

In order to eradicate poverty and enhancing prosperity, trade and its benefits needs to be extended to the most deprived. In order to build capacity in trade, G20 summits had shown their commitment to aid-for-trade for developing countries. Over the years, priority has expanded from assistance to ensuring quality and effective aid-for-trade. However, there is a need to exploit the synergistic combination of private and public investment. Effort has been made to promote PPP model and collaboration with scientific communities and other relevant stakeholders to boost investment in infrastructure for developing countries. Recently, the Argentina Summit in 2018 encouraged adaptation of innovative digital economy and established the importance of interconnectedness between trade and new technologies including artificial intelligence, thus, facilitating the strategy to promote and retain FDI for economic growth and value addition, productivity, efficiency, and sustainability.

Technology

The development agenda of G20 evolved over time to envelope the new issues emerging in the face of global economy. In order to keep abreast of emerging issues like new technologies, digitalisation, and evolving business ecosystems, G20 agenda has experienced a significant expansion. For example, since 2016 summit the G20 leaders have focused on digitization and spread of information technology, digital literacy, etc. For promoting digitization, G20 Digital Economy Development and Cooperation Initiative was launched in 2016. Subsequently, the 2017 Summit endorsed the G20 Roadmap for Digitalisation. Additionally, the G20 Education Ministerial Declaration 2018 encapsulated the idea of spreading knowledge of Information and Communication Technology (ICT), computing and coding skills within the curriculum given the rising importance of technology.

Promotion of entrepreneurship and digitization has been regarded important for better integration of youth into the labor market, fostering digital economy to attract investment and promotion of innovation. The various G20 Summits have promoted microeconomic policies aiming at lowering barriers for new business entrants in order to promote entrepreneurship. The G20 Entrepreneurship Action Plan was launched in 2016 China Summit along with the establishment of the Entrepreneurship Research Centre to address the need of G20 economies for promoting inclusive economic growth through innovation. Similarly, various aspects of technology assumed importance across the past 10 summits. The Mexico Summit in 2012 stressed to adopt effective policies to overcome the hurdle of energy crises and encourage clean energy technologies and its access. In the Turkey Summit in 2015 the focus was on energy collaboration[7] which also marked the First Ministerial Meeting on energy while keeping in mind that over 1.1 billion people lack access to electricity and 2.9 billion still rely on traditional use of biomass for cooking.[8] Thus, G20 members were committed to increase investment for supporting energy-efficient technologies and investing in R&D for diversification of energy sources to secure energy security and combat climate change.

With rapid improvement and spread of technology across the globe, the issues of technology-related inequalities like gendered digital divide[9], digital exclusion[10] are being discussed in the G20 forum since 2015. In 2015 summit, the narrative of technology-driven development gained momentum. In the consecutive summits, G20 leaders were committed to ensure effective investment in R&D for innovation. The recent summits stress on digitization and improvement of digital government, digital infrastructure, and enhancing digital skill of labour and expansion of digital economy.

Development

Though G20 was lauded for its robust support to stabilize the global economic environment and mitigate the impact of economic recession, the current criticism of G20 hovers over its current relevance in the post-crisis period. Hence, to continue the relevance and legacy of the forum, the leaders agreed to broaden the agenda to include development issues, beginning with the 2010 summit. In the post-crisis period, global recovery had been weak and the wear and tear of the prolonged recession was manifested in job losses, low trade, low investment, slowing financial sector, growing development and environmental concerns. To tackle these interconnected issues, emphasis had to be on strengthening global economic cooperation. Thus, it was important for G20 to broaden the horizon and build strong and resilient foundation to resolve the global challenges.

Although the G20 Leaders had committed to development of low income countries in 2008 and 2009 summits, especially the achievement of Millennium Development Goals (MDGs), but there was no vigorous attempt to capture the action plan. As mentioned in previous section, initial G20 summits grappled with the task of ensuring global economic recovery from the financial crisis of 2008-2009. After 2009 when the global economy was stabilized, G20 began to focus on the issues of long-term global development in order to ensure sustainable and inclusive growth as the overarching objective in the post-crisis period. In this regard, the 2010 Seoul Summit marked the genesis of G20 development agenda with the adoption of Multi-Year Action Plan on Development. It laid down the actions and their deliverables to be achieved over the medium term. The Development Working Group was set responsible for tracking the progress on the Multi-Year Action Plan. For instance, the G20 members expressed their concern over climate change since 2008 Washington Summit, along with endorsement of UNFCCC's Copenhagen Accord (in 2009 Summit), but the concrete initiatives like Global Marine Environment Protection were taken up from 2010 Seoul Summit.

After 2010 Summit, discussion and actions were expedited on critical issues of food security, skill development, education, and energy. Member countries were inclined towards taking up the development challenges faced by the low income countries and the emerging markets. Various action plans have been formulated to achieve the declared mandates for respective issues like G20 Food Security and Nutrition Framework (2014 Summit), G20 Energy Access Action Plan (2015 Summit), etc. Besides, these summits have been actively endorsing the actions of other international organizations like WTO, IMF and OECD in pushing forward its own development agenda. For example, G20 launched programmes on promoting global agriculture and encourage country-specific policies on climate change.

China's efforts to uplift millions of people from poverty facilitated the success of MDGs. Further, India's domestic development endeavours aligned with sustainable and inclusive growth triggered the G20 members to arrive at consensus for sustainable development mainly by strengthening development policies and coordination actions in the area of poverty alleviation, economic growth and climate change. Importance of food security was highlighted in the Pittsburgh Summit and Global Agriculture and Food Security Program was launched in Toronto Summit to provide finance to low income countries for improving agricultural productivity. In this endeavour, USD224 million of grants was immediately approved for Bangladesh, Rwanda, Haiti, Togo, and Sierra Leone.

The recurring issue of unemployment and job loss underwent significant evolution in the G20 process. In the period of crises, concern over job protection and survival of labor prompted concerted efforts by G20 which shifted its focus to social protection of labor, skill enhancement, reducing gender-based wage gap, workplace safety, etc. There has been major focus on youth oriented employment, entrepreneurship development, skill development, apprenticeships, etc. post 2013. In 2015, G20 came up with a skill strategy to ensure quality job generation along with G20 Entrepreneurship Action Plan and G20 Initiative to Promote Quality Apprenticeship in 2016. These initiatives are in tandem with the changing worldwide market demand and rise of entrepreneurship and skill-oriented employment.

Conclusion

G20 is being hailed as an evolving architecture of global governance especially in the view of the perceived vacuum created due to fatigue in the WTO and Bretton Woods institutions. Expectations have mounted over time which perhaps leads to question the genuineness of such tall claims by the different categories of stakeholders including the governments, policy makers, scholars and the private sector. This prompted us to examine the evolution of G20 agenda in the last 10 years in terms of the scope and depth of issues covered, priority sectors, specially-tailored mechanisms and packages, and above all, the development implications. Interesting, it is observed that G20 has witnessed a graceful shift from dealing with financial and macroeconomic stability concerns to hard core development issues like trade and investment promotion, food security, employment generation, skill development, financial inclusion, women empowerment, decent labour, and so on. It indicates the importance that G20 attaches to the burning global issues which affect the lives of the people in the world. The article also shed insights about G20's specially-tailored programmes on agriculture, digitalisation, financial inclusion, development of Africa, ease of doing business, better provision of credit to entrepreneurs especially women, and a host of other development issues.

Endnotes

1. Naim (2009) referred to 'minilateralism' with the idea of small group of countries having largest impact in solving a particular problem.
2. See Shome,P.(2014).
3. Statement of G7 Finance Ministers and Central Bank Governors, Washington DC, 25 September, 1999, at para 19, available at < http://www.g7.utoronto.ca/finance/fm992509state.htm
4. It includes existing G8 countries plus 11 emerging and developing countries (namely, Argentina, Australia, Brazil, China, India, Indonesia, Mexico, Saudi Arabia, South Korea, South Africa and Turkey) and the European Union to form the G20.
5. Official representatives of G20 member states on behalf of their leaders.
6. Summit declaration and other relevant documents are available in G20 Information Centre.
7. In Turkey Summit, 2015 G20 committed to Addis Ababa Action Agenda & Sustainable Development Goals (SDGs) to implement its outcome to ensure moving ahead with collective efforts and inclusive growth.
8. Taken from 2015 Summit Declaration.
9. Turkey Summit Declaration 2015, para 26
10. China Summit Declaration 2016, para 14

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Sustainable Financing for Development

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Abstract: Developing countries face challenges in using cross-border capital flows to fund investments in sustainable development. International financial institutions have a key role to play in minimizing risks to developing economies while ensuring more efficient allocation of public and private capital. However, the global financial architecture is not yet fit for the task. To advance sustainable financing, we recommend that the Japanese G20: (i) agree on measures to catalyze and mobilize private capital in support of the SDGs; (ii) promote measures to improve the allocation of development finance; and (iii) establish, and encourage commitment to, funding approaches for global public goods.

Challenge

It is increasingly difficult for developing countries to use international capital flows to fund investments that would help achieve the SDGs without risks of capital flow reversals, debt crises or other forms of market instability.

International financial institutions have a major role to play in opening up opportunities for greater use of cross-border capital flows for sustainable development, but their governance must be changed to make them fit for this purpose.

The G20 has taken up this agenda in a number of working groups. Most recently, the G20 Finance Ministers and Central Bank Governors formed an Eminent Persons Group (EPG) to recommend reforms to the global financial architecture. This group has presented its recommendations which will now be taken forward by the international financial architecture Working Group.

The terms of reference of the EPG report, however, were focused. The overall challenge at this stage is to combine the recommendations with other elements into a systematic program for advancing sustainable financing.

The Japanese G20 can advance the agenda in three ways.

First, it can agree on measures to increase the level of cross-border capital flows

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(This policy brief was prepared by the authors for the T20 Japan 2019 'Task Force 1:2030 Agenda for Sustainable Development'. T20 Japan Policy Briefs can be accessed at https://t20japan.org/publications/policy-briefs/)

going towards sustainable development, and, specifically, on how to crowd-in greater volumes of private finance through judicious use of public concessional and non-concessional finance.

Second, it can promote measures to improve the composition and allocation of financing to maximize development impact, by building a G20 consensus on creditworthiness analysis, debt transparency and registry, country platforms to coordinate, pool and scale up financing, and greater use of risk mitigation and risk sharing instruments.

Third, it can agree on approaches towards burden sharing and the funding of global public goods to the benefit of all countries, including through innovative financing mechanisms.

Proposal

Despite all the talk about moving from "billions to trillions," that first surfaced in the Addis Ababa Action Agenda (United Nations, 2015), the empirical reality is that developing countries, net, do not use cross-border capital flows to their full extent. Taken as a group, emerging market and developing economies will have a zero current account deficit in 2019, implying that any capital inflows they receive are matched by an equivalent amount of capital outflows.

This pattern more or less holds across all regions, although there are slight differences. Developing countries in Asia, where infrastructure needs and investment rates are largest, have large enough domestic savings to match their investment rates. Developing countries in Latin America do run small deficits, on average (1.8 per cent of GDP), but have relatively high debt ratios and debt service burdens. Developing countries in sub-Saharan Africa are running current account deficits of about 3.4 per cent of GDP, but much of this is financed through concessional funds.

Paradoxically, globalization has inverted traditional economic views of the desired direction of international capital flows. Rather than encouraging capital to flow to places where it is scarce, globally-mobile capital flows to places where it is most secure. This pattern is creating distortions in the efficiency and equity of investment around the world, especially of government investment.

Recent academic work (Lowe et al. 2018) presents new insights in the relationship between public and private capital which helps to better understand efficient allocation of public capital in particular. Public capital appears to have a higher rate of return than private capital and, indeed, the return on private capital is higher in countries where the level of the public capital stock is higher. They are complements not substitutes. However, the variance of returns is also much higher for public investment compared with private investment. About half of all developing countries seem to significantly underinvest in public capital while half overinvest and invest inefficiently, perhaps because of corruption (Knack and Keefer, 2007).

It is time for the G20 to take stock of upcoming opportunities to promote a more efficient allocation of public and private capital. Here, we recommend G20 actions in three areas: measures to catalyze and mobilize private capital; measures to improve the allocation of development finance; and measures to improve international collective action in financing goods with global spillovers.

Measures to Catalyze and Mobilize Private Capital

The G20 Eminent Persons Group report, welcomed by Leaders in the Buenos Aires communique, has already identified one key challenge for the international financial system as the creation of a large-scale asset class [principally for infrastructure] and the mobilization of significantly greater private sector participation through system-wide insurance and diversification of risk. A number of concrete measures are detailed in the report, starting with a renewed focus on market and creditworthiness fundamentals of good governance and improved human capital, and continuing with ideas about how to reorganize the instruments and work arrangements of the international financial institutions to enable them to work as a unified ecosystem (G20 Eminent Persons Group on Global Financial Governance, 2018).

Implementation details have been delegated to the International Financial Architecture Working Group. In addition, the Buenos Aires meeting catalyzed a number of voluntary commitments to give momentum to the growing groundswell to catalyze private sustainable financing through reporting and information sharing on sustainable investment outcomes, that would in turn permit the creation of more sustainable investment vehicles in capital markets and in private equity and venture capital circles.

G20 countries have the ability to shape a new global social impact investing ecosystem. In a first ever Investor Forum at the G20 Summit in Buenos Aires in November 2018, public and private business leaders agreed to scale up sustainable investments, especially in infrastructure. The call to action identified seven areas for follow-up that G20 governments can promote through regulations and their own activities, including harmonization of operating principles, ESG disclosures, and long-term sustainability policies, as well as evidence-based risk profiles. Three specific action areas for infrastructure focus on use of public financial instruments to shift risk, preparation of bankable projects, and creation of country platforms.

The experience of the initial implementation of the ODA private sector window, as laid out in the IDA 18 mid-term review, provides some salutary lessons about the difficulties that are likely to be encountered. There are several windows that have been created to facilitate greater private sector financing in low income countries. While off to a solid start, it seems that the blended finance facility and local currency facility have the most rapid uptakes, while risk mitigation is more complex and requires greater project preparation lead time. Small and medium enterprise financing and agribusiness have been dynamic sectors. The early experience also suggests that private financing in low income countries and fragile states is feasible (International Development Association, 2018). Healthy mobilization ratios (total cost of investment per unit of IDA resources) of 8:1 have been realized.

The G20 should be encouraged to deepen the agenda and monitor its implementation. One important quantitative metric is the degree to which long-term institutional capital from G20 countries is flowing into SDG related investments. For example, the EU has an action plan to reorient capital flows to sustainable investment, to manage financial risks from environmental and social causes, and to foster transparency and long-termism in financial and economic activity.

The Japan G20 Leaders' meeting can serve to:

- Reinforce Leaders' support to the timely implementation and follow-up to the Eminent Persons Group report;
- Identify and share good experiences with expanding sustainable finance, especially by large institutional investors and national and international development banks in G20 member countries;
- Encourage other international financial institutions to study the IDA experience

to determine if they too can facilitate greater volumes of private financial flows to developing countries, including to low income countries and fragile states;

- Pursue actions to shape and invigorate social impact investing and sustainable financing investment vehicles to build momentum around private financing for social good;
- Review and monitor the growth in sustainable private financing from each of their countries.

Measures to Improve the Allocation of Development Finance

There is a major unresolved dilemma in the allocation of development finance. On the one hand, the estimates of financing needs are very large (hence, "from billions to trillions"). Some countries face particular issues, in particular low income countries, fragile states and selected Least Developed Countries (LDCs). For example, there are 12 LDCs that will graduate from this group in the next few years with consequent loss of duty-free, quota-free preferential market access and aid for trade under the WTO window. They may need special attention for financing to manage the current account deficits during this transition.

Another allocation issue is to match finance with sectoral needs. As a matter of practice, most infrastructure financing would be debt rather than equity. For infrastructure financing, where the volumes are largest, debt would often exceed 80 percent of total project costs. The problem, of course, is that from a macro point of view, many developing countries cannot afford to take on too much debt too quickly—their absorptive capacity is limited. The default is to continue with the current approach that gives pre-eminence to macro debt considerations over micro assessments of the returns to capital.

One proposal is to try to shift financing towards more equity. This would relieve some of the debt pressures but creates problems with affordability. Because equity is far more expensive than debt financing, infrastructure services would need to be priced higher, thereby reducing accessibility.

A balance is needed between macro, micro and affordability/access concerns that should be based on detailed country considerations. Rules-of-thumb are not good proxies in these debates. The costs of erring on the side of too much caution can be very high in terms of foregone opportunities for accelerating SDG related investments. Against that, the costs of erring on the side of too much debt can also be high if this precipitates a crisis.

G20 members are the principal providers of international development finance, but they do not hold similar views on how to strike the best balance. Efforts to forge a consensus on the various economic and political issues are unlikely to prevail; but there can be progress on the overall ecosystem. The G20 can:

- Assist in generating a more comprehensive international debt registry. If each G20 country requested (and then published in aggregate form) information from its own financial firms on the extent of cross-border flows of debt going to governments and public agencies in developing countries, it would be a common basis on which all creditors could make judgments as to country creditworthiness.
- Reinforce the emphasis on improving governance and the rule of law. Although imperfectly measured, existing metrics of governance are the most significant determinant of creditworthiness of developing countries. All G20 members have an interest in helping countries if they choose to improve institutions that support the rule of law.

- Support developing countries in the creation of sector-specific platforms to generate coherent and high-quality project proposals, linked to national development plans, with capacity for troubleshooting on implementation, harmonization of procedures and pooling of finance and risk mitigation instruments. Such platforms could be used by MDBs and UN agencies to pool their funds in pursuing common goals.
- Encourage international institutions to do more with the private sector, and encourage the private sector to be more responsive to public concerns such as ESG reporting. For example, the Multilateral Investment Guarantee Agency (MIGA) has only paid out 10 claims since its inception in 1988, because it has been proactive in resolving disputes. MIGA has a plan for growth, but, with a level around $5 billion per year in guarantees, it is too small to have a transformative impact on international development finance. MIGA's country and project size limits could be expanded with support from its G20 shareholders.

Measures to Fund Global Functions

Although there is much talk about the funding of global public goods, this term is too narrow when taken literally as an economic concept, and often too broad when used expansively for any global action. Across a range of sectors, however, there is a strong case for international collective action to fund non-rival and non-excludable functions, like research and knowledge sharing, functions with significant potential spill-overs such as control of pandemics and mitigation of global warming, and global norm setting, visioning, convening and advocacy on policies, such as FAO's principles for responsible investment in food and agriculture (Yamey et al., 2018). Importantly, the latter includes funding of participants from the Global South in norm setting to ensure inclusive agency.

Aid Replenishments

A number of important international agencies are starting negotiations to replenish their funds in 2019 and 2020. Typically, these negotiations are handled on a case-by-case basis; each agency, often using an external facilitator, makes its case independently of others to each of the donors on the basis of a program of work that details the results the agency hopes to achieve.

In 2019/2020, however, the sheer number of agencies and the volume of replenishments suggests that an approach based on a set of core principles would be useful. The replenishments involved are: the Global Fund (6th), African Development Fund-15, IDA-19, GAVI (3rd), Asian Development Fund-13, Green Climate Fund, the Global Partnership for Education (4th) and the International Fund for Agricultural Development-12. In addition, there are calls for additional funding of the Global Agriculture and Food Security Program and for launching the International Financial Facility for Education.

The funds fall into two categories: multisector funds, focused on the poorest countries (IDA and regional bank funds); and vertical funds focused on health, education, climate and food security.

In the last cycle, these funds required about $65 billion, sufficient to support new spending of about twice that amount (the higher number for new spending is because some funds are now able to borrow in capital markets to on-lend to countries, and significant repayments are falling due on past credits).

Many of these funds face the same sets of issues: ensuring additionality in the face of budget pressures, especially at a time when market access is feasible for many countries (and indeed for many funds); ensuring appropriate focus on low-income and lower middle-income countries; and expanding the base of contributors to enhance the multilateral characteristic of the funds.

G20 members constitute the largest economies in the world, and hence will be the dominant contributors to these and other potential funds. It would be useful if they approached the negotiations in a systematic way. They could learn from the experience of the UN in its new Funding Compact which strives to rectify the imbalance between stagnant core contributions and rising non-core, voluntary contributions that have to be continuously renegotiated. One approach is to make more use of innovative finance mechanisms that can be more stable and predictable than budget-funded ODA. Interesting new ideas include the international finance facility for education (IFFEd).

Negotiations for replenishments of existing funds would be significantly helped if G20 members committed to:

- Maintain commitment levels in national currencies in aggregate to these nine agencies at least at the level of the last replenishment, thereby allowing donors to reallocate among agencies while keeping constant their overall commitment to the global agenda;
- Support a minimum allocation of concessional funds to low income and lower middle-income countries of 75 per cent (in grant equivalent terms);
- Develop a formula for burden sharing on these and other multilateral agencies with emerging and developing economy members of the G20, taking into account income levels and size of their economy, to be phased in over time;
- Encourage balance sheet optimization by agencies, including authorization for market borrowing within agreed upon prudential limits.

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Leveraging Science, Technology and Innovation for Implementing the 2030 Agenda

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Abstract: Global technology regimes and international organisations have played a significant role in facilitating Science, Technology and Innovation (STI) cooperation to cater to diverse needs in the areas of development and sustainability. However, the existing technology transfer models are found to be inadequate to meet the needs of developing countries. In this context, this Policy Brief examines the significance of Science and Technology (S&T) and availability of innovation driven solutions, to address sustainability challenges. Additionally, the Brief highlights role that G-20 may play in promoting the Sustainable Development Goals (SDGs) through supporting the best practices adopted for technology cooperation. It also puts emphasis on building technological as well as financial capacities, facilitating intellectual property regimes for fostering STI partnerships.

Challenge

The Third Conference on Financing for Development (FfD3) in Addis Ababa, by prioritizing Science, Technology and Innovation (STI) delivery, indicated the importance and support to addressing STI issues. There are challenges in Technology Cooperation, including capacity to absorb technologies, poor financial capacities of the governments and private firms in developing countries, and managing intellectual property rights (IPR) regimes. Majority of countries are yet to integrate STI policies with the Sustainable Development Goals (SDGs), and countries that have tried to do so have varied experiences (IATT, 2018).

There is a need to assess how STI policies can be synergized with the SDGs. Concerns as regards lack of effectiveness of existing models and mechanisms have led to slow delivery of the expected results. The risks and costs of creating and adopting new mechanisms need to be addressed. Historically, STI cooperation has been confined to quantifiable, economic outcomes.

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(This policy brief was prepared by the authors for the T20 Japan 2019 'Task Force 1:2030 Agenda for Sustainable Development'. T20 Japan Policy Briefs can be accessed at https://t20japan.org/publications/policy-briefs/)

Although technology transfer is part of many conventions such as Convention on Biological Diversity, in general, these conventions have not been successful or effective in inducing technology transfer. A major factor has been lack of a mechanism that couples finance with technology transfer and incentivizes technology transfer. The Fund under Montreal Protocol has been successful because finance and technology transfer were linked. The United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement are using multiple solutions including creating institutional mechanisms, to address technology transfer. More needs to be done in this.

Proposal

The importance of STI and availability of innovation driven solutions, particularly to address sustainability challenges has been a key theme in many initiatives including the Rio+20 process that led to the 2030 Agenda for Sustainable Development, the Addis Ababa Action Agenda (AAAA), the UNFCCC and the Paris Agreement.

A large part of the technology requirements by developing countries to meet the SDGs are related to their needs in energy, agriculture and health sectors. Bridging knowledge gaps particularly in technical and scientific domains has been a core agenda of many interventions. The work at the United Nations Educational, Scientific and Cultural Organization [UNESCO] Institute for Statistics (UIS) on SDG 9.5 is to be strengthened further. The environmental effectiveness of the Montreal Protocol Fund has been substantial. The Global Environmental Facility (GEF), a joint initiative of the United Nations Development Program (UNDP), United National Environment Program (UNEP) and the World Bank, has facilitated developing countries to obtain new technologies and project financing at a low cost.

The Paris Agreement has elaborate provisions on technology development, transfer and financing for technology transfer. Climate Technology Centre and Network (CTCN) is envisaged as its implementation arm. According to Coninck and Sagar "Unfortunately, however, the CTCN, which is tasked with providing implementation support to developing countries, has not been supported commensurately with the needs and still suffers from a funding shortfall" (Coninck and Sagar, 2017). So coupling funding with technology transfer is essential.

Digitalization and integration into digital economy can play a key role in meeting the SDGs as they enable leapfrogging and enhance access to goods, technologies and services. Emerging opportunities in FinTech including adoption of blockchain for governance and use of cloud computing and other digital technologies can make a positive impact. They can make a significant difference in sectors like agriculture (Tripoli and Schmidhuber, 2018). Many developing countries are investing in digital infrastructure and upgrading their capabilities in managing information and communication technologies and digital technologies for enabling better access and inclusion (Chaturvedi et al., 2019). The role of S&T and Innovation policy frameworks in this is obvious, and there should be a synergy between S&T and innovation policy for the SDGs and policies in these emerging applications and technologies.

We make three specific proposals that harness the potential of STI for achieving the 2030 Agenda: 1) to establish a Technology Facilitation Mechanism (TFM), including a technology bank, for the implementation of the 2030 Agenda; 2) to adopt new models for incentivizing innovations for global public goods and enhancing access to them; and 3) to integrate STI cooperation into strategies for the achievement of the SDGs. These are briefly discussed below.

Establish a Technology Facilitation Mechanism (TFM) as Alternative Mechanisms

Several developing countries held an unambiguous position in support of the establishment of a TFM which they consider as one of the most transformative means to implement sustainable development. India, through its successive submissions, has highlighted the point that immediate and urgent delivery of technology development, deployment, dissemination and transfer to developing countries requires suitable responses. Current institutional arrangements are not equipped to meet the genuine needs of developing countries in technology development and transfer.

The international technology oriented mechanisms to address climate change are oriented towards: 1) knowledge sharing and coordination; 2) research, development and demonstration; 3) technology transfer; and 4) technology deployment mandates, standards, and incentives (Coninck and Sagar, 2017). The United Nations (UN) has undertaken several initiatives over the years to address the challenge of technology gap between developed and developing countries for environmentally sound technologies. The most prominent initiatives in the area of technology transfer are: 1) the Multilateral Fund under the Montreal Protocol; 2) Green Climate Fund, 3) GEF; and 4) the Climate Technology Centre and Network of the UNFCCC. These are necessary and are not sufficient as more is needed in terms of Research and Development (R&D), funding, technology transfer and adoption and in terms of synergy among them.

The 2030 Agenda, prima facie, has only produced a rough skeleton of the proposed TFM. The structure proposed consists of UN Inter-Agency Task Team (UN IATT), Multi-stakeholder Forum on Science, Technology and Innovation for the SDGs (STI Forum) and Online Platform.

While over the years, the UN, through its various specialised agencies with sector specific niches, has been mapping capacity gaps in the developing countries, there is a new and emerging need to identify systemic deficiencies that can be identified and addressed through TFM. These include capacities for technology assessment, particularly in the domains of development and sustainability in the first place in tune with the SDGs.

Next would be in terms of ecosystems so that individual countries can come up with specific (cost effective) technology solutions in these domains and contribute to the global repository. And finally, to have relevant capacities to absorb and use technologies that are being transferred. Effectively, capacity building would entail overcoming both institutional and resource constraints.

Inspired by the already established Technology Bank for the least developed countries (LDCs), a key outcome of the Istanbul Programme of Action for the Least Developed Countries for the Decade 2011-2020 (IPoA 2011-2020), we propose that a universal technology bank be created as the core institution of the TFM. The activities around the TFM technology bank and dissemination of technologies require careful policy design to mitigate informational asymmetries and address market failures and other systemic challenges. The technology bank will enable LDCs to meet their needs in technologies relevant to achieve the SDGs. It will facilitate technology transfer, help in capacity building and will assist in identifying reliable and suitable technologies. It can house patent pools, clearing houses and other information and technology sharing initiatives.

The design of the technology bank itself would require mechanisms to facilitate technology acquisition overcoming institutional bottlenecks like IPRs and lack of capacity. Finally, the TFM also has to develop a template for financing both ends of the activities. This further suggests timely delivery and could mean customization in response to user needs. The users in many cases, we expect, would be national governments or private parties (mostly mediated through national governments or relevant UN agencies). We propose Technology Needs Assessment as an important activity in this.

The needs of the LDCs and graduating LDCs should be given special attention in the work of the proposed technology bank. The TFM should visualize a complete scheme of activities that brings on board the regional UN agencies which could work together with the IATT, technology bank, other UN bodies on the ground and national governments in facilitating transfer of relevant technologies and enable their adoption.

Novel models and modes for incentivizing innovation such as, open source, open innovation, crowd sourcing and innovation prizes, can be explored and adopted. By now there are many successful examples in this regard and there is an ever growing literature on these models and their adoption in different sectors, ranging from agriculture to drug discovery. India launched Open Source Drug Discovery project for developing drugs for Tuberculosis (TB).

In case of emerging technologies, the Synthetic Biology Strategic Research Initiative at the Cambridge University is promoting open source approach to development of synthetic biology based processes and products and has also developed an open source based Material Transfer Agreement. In addition to these, it is initiating many schemes to promote low cost innovations and competitions to fund research and development in synthetic biology that will meet specific challenges. The emphasis on open source and responsible innovation makes this a good model to study, adopt, and make relevant for developing countries and LDCs.

There is substantial literature on alternative mechanisms to share innovations through novel licensing mechanisms that emphasis on maximizing social good than enhancing revenue from licensing. These mechanisms, often based on General Public License, can be tailor made for different types of needs and arrangements in sharing IP and innovation (Bogers, Bekkers and Granstrand, 2012).

Adopt New Models of Innovation for Global Public Goods

Addressing technology related issues from a public goods perspective will enable finding workable solutions. Non-rivalrous consumption and non-excludability are important features of public goods. Global public goods are the ones for those, international community has collective responsibility to provide as they benefit people, irrespective of country.

Stiglitz had argued that knowledge is a global public good. Scholars have pointed out that knowledge can be a public good while S&T itself can be considered as a public good and they have underscored the challenges in translating this into practice (Stiglitz 1999: 310). According to Archibugi and Fillippetti, transfer of knowledge is not sufficient to make productive use and users have to spend time and energy for assimilation. They point out that normative implication of knowledge as a global public good is it needs greater public investment and global co-operation (Archibugi and Filippetti, 2015).

Global public goods can be produced and adopted for finding cures to communicable diseases, enhance productivity in agriculture, protect environmental commons, and enable access to information and knowledge. Successful examples of such co-operation in S&T include the Consultative Group on International Agriculture (CGIAR) (for green revolution and further) and the European Organization for Nuclear Research (CERN) (for research in basic sciences).

However, there are greater challenges in accessing knowledge (including data and information) and applying it for S&T and for production of public goods. Access to scientific and technical knowledge is hindered by many factors, including intellectual property, lack of capacity and underinvestment in human development. Democratizing internet and liberal open access policies can facilitate better flow and utilization of S&T, and more efforts are needed in this (Garcia, 2018).

While there are many initiatives to promote open access, there are limitations with them as they are too inadequate or often limited to addressing issues relevant to developed countries. We urge that there should be a global action plan on Open Access to S&T information and data, to meet the needs of developing countries and LDCs.

Integrate STI and the SDGs in Development Cooperation

STI cooperation has been a successful component in Development Assistance Programs. This has resulted in significant capacity building, bi-lateral collaborative R&D and joint research in themes/topics of mutual interest. Developed countries and emerging donors such as India, China and Brazil have assisted many developing countries and LDCs through development cooperation based on the donors' capabilities and needs of the recipient countries.

S&T cooperation under India, Brazil and South Africa (IBSA) and Brazil, Russia, India, China and South Africa (BRICS) had resulted in collaboration in such areas as health, water and sanitation, Information and Communication Technologies (ICT) for development and in technologies like nanotechnology, advanced materials, biotechnology (for health) and ICTs. However, integrating the SDGs in STI cooperation has not happened and there is a disconnect between STI cooperation and strategies for the SDGs.

There is a strong case to use STI cooperation to meet the SDGs by developing specific programs and mechanisms. For example, STI cooperation can be linked with specific goals of the SDGs. The current frameworks and agreements in STI cooperation can be analyzed from a SDG perspective, and institutions that facilitate STI cooperation can be asked to integrate meeting of relevant SDG targets as an objective for STI cooperation.

Selected Good Practices

Japan: Integrating STI, the SDGs and Development Cooperation

Prior to policy developments for amalgamating STI with the SDGs, Japan initiated its revival. The Organization for Economic Co-operation and Development reported that Japan has made steady progress in solving traditional environmental problems, notably air emissions, water pollution, and waste management (OECD, 2010). Japan's STI policy is embedded in its SDG model, which reflects on promotion of Society 5.0, regional vitalization and empowering women and future generations (PMO Japan, 2017).

The objective is integration of cyber-physical system and development of key technologies to transform socio-economic structure, including business and government services, production, healthcare, energy, food, traffic, infrastructure, disaster, finance (UNCTAD 2018). The 1st SDG award, instituted at the Third SDGs Promotion Headquarters meeting in June 2017, showcased technological interventions to cure infectious diseases, build smart cities, supporting maternal and child health in Japan as well as in developing countries (MOFA, 2017).

Japan, the 5th Science and Technology Basic Plan (2016) lays the roadmap for addressing issues related to sustainable growth, by S&T interventions. Japan is committed to make every effort both domestically and internationally to achieve the SDGs. Japan has established the "SDGs Promotion Headquarters" as well as the "SDGs Promotion Roundtable Meeting" under the multi-stakeholder framework in May 2016. The Headquarters formulated the "SDGs Implementation Guiding Principles" and held 4th meeting on December 26, 2017 (UNESCAP, 2018).

Japan's collaborative efforts towards the SDGs are manifested through various programmes and projects in developing countries. For instance, Graduate School of Bioagricultural Sciences, Nagoya University and Kenya Agricultural and Livestock Research Organization (KALRO) created rice varieties and cultivation technology for Kenya to address SDG 2 (JST 2018a, b); in South Asia, the Japanese enterprise, Sompo Holdings, Inc. offers agricultural insurance products to reduce climate related risks in agriculture (SOMPO, 2018). Similarly, the diagnostics technology developed by Nagasaki University is being used to produce affordable and rapid diagnostic kits including point-of-care (POC) test kits for local communities in African countries, to treat malaria, Flu and other Neglected Tropical Diseases (NTDs) (Nagasaki University, 2015).

Other interventions to promote research and education for creating a sustainable society include Gender equality schemes in Science, Technology, Engineering and Mathematics (STEM) education, water desalination systems, clean energy sources, disaster risk reduction (2015-2030), waste management mechanisms and others (JST, 2018b). In June 2018, The "Extended SDGs Action Plan 2018", on the lines of "SDGs Action Plan 2018" was released signifying the systematic efforts underlined by Government of Japan towards SDG implementations (MEXT, 2018). The aforementioned plans acknowledged the role of STI in mitigating socio-economic issues of the country. It aims in reshaping national development plans, in the light of STI strategies for SDGs (UNCTAD, 2018).

Some Examples of Global Solutions from the South

Healthcare – Vaccine Development: India's success relating to domestic production of low cost drugs and pharmaceuticals is unparalleled in the developing world and has earned it the eulogy 'pharmacy of the world'.

Vaccines are among the greatest scientific achievements in modern medicine that have helped in saving humanity from the scourge of microbial infections. However, the available vaccines are far less in number than the target diseases, and the efficacy of those available is being continuously worked upon. India has emerged as a hub of vaccine research both in the public and the private sectors and has been successful in commercializing a host of candidate molecules (hepatitis B, typhoid, anti-rabies, DTP-HB, DTP-HB-Hib, mOPV type 1, leprosy, hepatitis A, etc.).

Renewable Energy – International Solar Alliance: India is working towards increasing renewable energy capacity by more than 5 times from 32 GW in 2014 to 174 GW by 2022. India's focus and efforts at solar energy generation is well acknowledged. Under the solar mission India targets deploying 20,000 MW of grid connected solar power by 2022 and aims at reducing the cost of solar power generation in the country through aggressive R&D and domestic production of critical components.

India now hosts the International Solar Alliance of 121 partner countries along the Tropics of Cancer and Capricorn that received plentiful of sunlight. This platform is meant to address the special needs of these countries and generate larger quantum of investment and resources. India was joined by France in launching this alliance during COP 21 in 2015.

South-South Collaboration in Health Biotechnology: Cuba, Brazil and India have used South-South collaboration to develop vaccines, affordable diagnostics and drugs for enhancing access in developing countries and in ensuring that these are affordable (Thorsteinsdóttir, 2012).

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Appendix

The Addis Ababa Action Agenda (AAAA) documents final decision on part of world leaders to establish a Technology Facilitation Mechanism – TFM. This was officially adopted at the UN Sustainable Development Summit in September 2015 for the implementation of the 2030 Agenda for sustainable development. India (along with Brazil) has been enthusiastically promoting the cause for TFM under the Post 2015 Development Agenda.

African Union (AU), under vision of AU Agenda 2063, adopted Science, Technology and Innovation Strategy for Africa 2024 (STISA-2024). The strategy was developed with the support of a Working Group that had representatives from, inter alia, African Academy of Science, African Union Commission, New Partnership for Africa's Development (NEPAD) Agency, International Science Council (ICSU), United Nations Economic Commission for Africa (UNECA), and UNESCO. The Strategy identified 6 areas of priorities including, eradication of hunger, and, prevention and control of diseases and ensuring well-being.

Organizations like PIPRA (Public Intellectual Property Resource for Agriculture) are promoting capacity building in IPR management and licensing and are helping innovators and the users to use IPRs so as to balance the need to incentivize innovation and enhance affordable access.

Mechanisms like patent pools, clearing houses, patent commons enable technology sharing and the literature shows that they are effective in many cases. For example, the Medicines Patent Pool (MPP) has demonstrated that it can enhance affordable access in developing countries and by negotiating with innovators and producers in developing countries, it has created mechanisms for technology transfer, licensing and sharing of royalties.

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IMF Notes Global Economic Expansion is Weakening Faster than Expected

The world is grappling with yet another slowdown, mainly due to numerous risks aggravated by trade wars between the United States and China, resulting in disruption of supply chains, the weakening of investors' confidence, Brexit, a significant revision in Germany's auto production, and the high debt burdens for individual countries. This has impacted the advanced economies like the United States, Europe, and Japan and also of sub-Saharan Africa thus impacting the fight against extreme poverty.

Sources: *Gopinath, Gita (2019), "A Weakening Global Expansion Amid Growing Risks", IMF Blog, 21 January, 2019, available at< https://bit.ly/2Hqcr7n>*

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Osaka Summit: Challenges Ahead

The challenge before the G20 leaders is to save the global economy from the upcoming slowdown and global imbalances. Thus the focus of the Osaka Summit is to ensure cooperation to avoid policy missteps that are detrimental to global economy and which could deepen global imbalances. Other issues are arriving at a consensus on data governance and addressing tax evasion. Japan will be introducing "Osaka Track" under the WTO for protection of intellectual property and personal data in the context of data use. Similarly, an agreement among the G20 leaders on new international tax rules for multinational companies is also a priority. The Osaka Summit will also be addressing new challenges like managing the ageing population, regulation of crypto-assets and fixing market fragmentation.

Source: *Sakurai, Reiko (2019), "Challenges of the Japan G20 Summit", NHK World-Japan, 24 April, 2019 available at < https://bit.ly/2UI6ns8 >*

Need for Strengthened Global Coordination

Japan will steer G20 leaders' discussion towards strengthening of global policy coordination for addressing risks faced by the global economy. G20 is a significant platform to encourage anti-protectionism, multilateralism and easing the US-China trade tension. Japan as chair of the summit, wants to promote multilateral talks, a position which the IMF has also endorsed for trade negotiations. "I told my G20 counterparts that the group must act with the spirit of global coordination," Japanese Finance Minister Taro Aso told media after a meeting of G20 finance leaders in April.

Source: *Kihara, Leika (2019), "Japan Urges G20 to Strengthen Global Coordination", Reuters, 12 April, 2019, available at < https://reut.rs/2ZJk267 >*

Free Trade Should be Top Priority for Japan Presidency: EU

Issues of free trade needs to be given top priority in G20 agenda as per the European Union. The G20 summit should tackle the hindrances to global economic growth "The EU is set to make its statement at the upcoming G20 forum", noted a news report in Sputnik International. The report quotes an EU document which says the major obstacles are higher tariffs, declining consumer demand, and weakened manufacturing across the globe, due to Brexit, bilateral trade disputes, slowing down of Chinese economy, issues of intellectual property rights, and forced technology transfer. Therefore, free trade in goods and services, investment and intellectual property rights need to be prioritised. Also, EU officials are also planning to put Brexit as G20 agenda.

Source: "EU to Urge G20 to Address 'Root Causes' of Disruptions in Int'l Trade", Sputnik, 4 April, 2019, available at < https://sptnkne.ws/mgg5>

Japan Presidency Promises Crypto Regulation

The Osaka Summit will take the opportunity to push the G20 leaders to agree on regulating crypto currency for anti-money laundering and counter-terrorism financing purposes. This was reported by Kyodo, a local news outlet in Japan. The news report said the aim is to establish a system that protects user's assets and maintains transparency; collect individual user's information at the time of transacting in crypto; and maintain international security protocols, to avoid money-laundering related breach and negligence by the companies.

Sources:Zmudzinski, Adrain (2019), "G20 to Establish Crypto AML and Counter-Terrorism Financing Regulations in June", Cointelegraph.com, 7 April, 2019, available at < https://bit.ly/2G4kDHw >

Kirilova, Valentina (2019), "G20 Governors to Push for 'Anti-anonymity' Rules for All Crypto Transactions", Leaprate.com, 9 April, 2019, available at < https://bit.ly/2DGLdVD >

"Japan Prepares a Manual of Crypto Regulation Proposals for G20 Leaders", Crypto-Economy, 22 April, 2019, available at < https://bit.ly/2ZMnJYP >

Osaka Summit: An Opportunity for Cooperation in Health and Finance

Global cooperation will facilitate new funding mechanism for R&D in health sector to overcome the historical clash in pricing of medicines by big pharmaceutical firms in the low income countres. Enhanced cooperation among various stakeholders is being regarded as an effective way to deal with global health issues. Alan Donnelly, convener of the G20 Health and Development Partnership, told The Japan Times that political silos also have to break down, because there is a correlation between public health and a sustainable economy. There is immense scope for G20 members to partner for warding off potential pandemics and pool resources towards these initiatives by new financing efforts.

Source: Johnston, Eric (2019), "G20 in Osaka Offers Chance for Health and Financial Policymakers to Stop Fighting and Join Hands", The Japan Times, 5 April, 2019, available at < https://bit.ly/2WbS0xS >

About G20 Digest

In less than 36 months, India shall play host to the G20 summit. Since G20 Summits are watched worldwide with interest and suspicion, India's Presidency in 2022 would be important, at least for the developing countries. Unlike the first few summits, Annual leaders' summits of G20 now encapsulate a vast array of issues beyond the financial sector; each has the potential to impact the world in a substantial measure. Each presidency has thrown new issues along with the common ones that bind the grouping together. In view of the diversity of issues taken up in G20 platform, it is imperative to study and assess current functioning of G20 and its future roadmap. RIS plans to begin a journey to this process through this publication in order to gather the views, opinions and scholarly research. In successive issues of 'G20 Digest' we shall bring the thought leaders in various sectors to comment on each of the themes through articles, interviews and commentaries, besides offering a snapshot of current news about the G20 summits and related themes. The Digest will thus hopefully become an essential component of the G20 Delhi Agenda in all its multifarious aspects. Naturally, comments from our readers will be most valuable to guide this publication on its journey.

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Guidelines for Submissions

- *G20 Digest* is a peer-reviewed journal dedicated to the issues and subject matters relating to G20 and its broader linkages to global governance, functioning of multilateral institutions, role of emerging markets, and larger development interests of the people.
- Scholarly articles on various topics of interest to G20 are invited from academics, policy makers, diplomats, practitioners and students. The articles may cover the whole range of issues including role and effectiveness of G20, functioning of G20, coverage of sectors, G20 and global governance, G20 and global financial stability, and similar topics.
- Original manuscripts not exceeding 4000 words prepared in MS Word using double space with a 100 word abstract and three key words may be sent to editorG20digest@ris.org.in.
- The submitted articles must follow APA referencing style.
- All numbers below 10 should be spelt out in words such as 'five' 'eight', etc.
- Percentage should be marked as 'per cent', not '%'.
- For numeric expressions, use international units such as 'thousands', 'millions', 'billions', not 'lakh' and 'crore'.
- For time periods, use the format '2000-2008', not '2000-08'.
- Mere submission of an article does not guarantee its publication in the journal.

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