National Consultations on Transforming Education in Indonesia

1. TES NATIONAL CONSULTATION PROCESS

Convenor's Name: **Mrs. Suharti, P.hD, Deputy Minister of Education, Culture, Research, and Technology, Republic of Indonesia**

Number of consultations (if more than one consultation takes place): **2 (two)**

The First National Consultation was held in 20-21 June 2022

The Second National Consultation was held in 22-23 August 2022

Basic information on all the consultation(s) convened

Date(s):	20-21 June 2022 and 22-23 August 2022
Title(s)	1st : **The First National Consultation for Transforming Education in Indonesia** 2nd : **The Second National Consultation for Transforming Education in Indonesia**
Types (e.g. National/Subnational)	National
Geographical Focus	all 34 Provinces in Indonesia
Number of Participants for each consultation	1st : 59 participants 2nd : 90 participants
Language used	English and Indonesian

Total Number of Participants:

Number of Participants from each Stakeholder Group	
15	School leaders, teachers, educators, facilitators, and professors
7	Youth and students (including, children and adolescents)
1	Members of Parliament
80	Government and National Institutions
20	Local Government
29	Non-Government Organizations, and Corporations
3	Research Institutes
12	Community leaders
8	Parents and Communities
120	Civil Servants
4	International Organizations

2. PRINCIPLES of ENGAGEMENT

How did you organize the consultation to ensure the following principles of national consultations?

v	Whole Government Approach
v	Inclusion and Equality
v	Giving all sectors and stakeholders to participate and collaborate (all participants give their feedback)

3. CONSULTATION FOCUS AND OUTCOMES

What was/were the main areas of focus of the national consultations, based on the TES five thematic action tracks* and the issues outlined in the Discussion Papers and the Futures of Education Briefing Notes?

All the presentations in the 20 regions of Indonesia on the 5 tracks focused on addressing the following key issues:
- Current status of Indonesia education system
- Challenges the education systems is experiencing prior to and due to COVID-19

Actions that Indonesia should prioritize to transform education in the short (2023-2025), medium (2025-2030), and long term (2020-2035)

1. Inclusive, equitable, Safe and Healthy schools:

Transformation Policies:

The recent in pursuance of schools that can fully develop the personality of each student, enable them to participate effectively in society, and strengthen respect for human rights.

The reformation of the education system places students as the center of the education which ensure an inclusive system that focuses on student development. The ultimate goal is to achieve higher quality education for students, that is warranted in the State Budget as mandated in the Constitution.

Indonesia has achieved the target of nine year of compulsory education with a one hundred percent participation rate. Girls and boys have the same opportunity to have access to education. The Indonesian Government provides the best effort to form inclusive, equal, safe, and healthy schools that are reflected in accomplishing school policies, especially by creating a conducive learning environment, encouraging character development for school affiliates, as well as evaluating the level of literacy in reading and numeracy .

Furthermore, to assure that the transformation process is going on in an excellent direction, the flexibility of funding support should be more uncomplicated. The School Operational Fund (BOS) policy mechanism should also be changed to meet the target needs and conditions of each region.

The educational funding assistance policies such as BOS, Smart Indonesia Card (KIP), and Single Tuition Fee (UKT) are operational and personal, and also very accessible to support all educational levels, from Early Childhood Education, Basic Education, and Secondary Education, to

Higher Education levels. The inclusiveness of the financing is also demonstrated by the national policy for students with special needs as well as affirmations for students in the 3T region (underdeveloped, frontier, and outermost).

To accomplish a safe school environment that is related to averting sexual misconduct, the Indonesian Government declare a ministerial regulation on the Prevention and Handling of Sexual Violence in Higher Education, which was later reinforced by the Sexual Violence Law which was formally stated in 2022.

The safe and healthy school policies were also conducted way before, during, and after the Covid-19 pandemic. They are brought through Safe School and Adiwiyata Green School programs that prioritize project-based learning. These programs show education policies that are more resilient to face changes in the future.

The Indonesian government provides guidance and flexibility to schools in developing and implementing emergency curricula during the Covid-19 pandemic. Schools and teachers are also given the freedom to choose contextual, relevant, and effective learning methods. In 2021 the Emancipated Curriculum was developed which aims to recover learning losses that had occurred before the Covid-19 pandemic. The Emancipated Curriculum does not have to be entirely implemented by all schools. The schools have the flexibility to choose one of 3 types of curriculums according to school preference.

To ensure that quality and equitable education services continue, the Government conducts periodic and comprehensive evaluations of the performance of the education system through the National Assessment (NA). This National Assessment initiative captures the quality of outcomes and the learning environment in all schools in Indonesia. The learning outcomes assessed no longer focus on certain subjects, but on the basic competencies of literacy, numeracy, and character that should be possessed by students in order to be able to become lifelong learners. This form of assessment also ends the tradition of final assessment that has been done for years

The results of the National Assessment are combined with various other education data, which are merged into an Indonesia's Education Report (Rapor Pendidikan Indonesia) which is given to schools and local governments as an evaluation to oversee the problems and potential for further development. This Education Report helps schools and local governments formulate programs and policies to improve the quality of education in a more precise and greatly directed way that aims for continuous improvement.

The presence of Indonesian Schools Abroad and Community Learning Centers is also another accomplishment taken to ensure the quality of education for Indonesian citizens wherever they are.

Challenges highlighted:

1. Several regions in Indonesia, especially the 3T (frontier, outermost and least developed) region, are still experiencing difficulties in getting access to quality education and the availability of quality health facilities and services;
2. The Central government's education policy, *Merdeka Belajar* or Emancipated Learning, has not yet been fully implemented due to constraints on several policies at the regional level;
3. Eradication of three sins in the national education system, namely intolerance, bullying, and sexual violence;
4. The student sustainability rate from junior high school to high school level is only 87% (2020);

5. Student participation in Early Childhood Education (PAUD) is still relatively low, because 17,409 villages do not yet have PAUD institutions (Feb 22);
6. The implementation of regulations on children with special needs has not been implemented thoroughly;
7. Reactivation of the Board of Education, to support the improvement of the quality of education services by providing opinion, direction and support for personnel, facilities and infrastructure, as well as education supervision at the national, provincial, and district/city levels.

Way forward:

1. Indonesia is the largest archipelagic country in the world that has its own challenges to achieve quality education targets in all regions, including the 3T (frontier, outermost and least developed) region. The Government of Indonesia through the *Merdeka Belajar* or Emancipated Learning policy related to the transformation of the School Operational Fund (BOS) funding mechanism is one of the best steps to ensure support for improving education, especially for students in the 3T region. The transformation carried out was to provide an increase in the quality of funding from the previous condition, and to ensure that the distribution of these funds was directly transferred to school accounts, adjusted to the level of regional costs, as well as more flexible use to support school operations.

   The Government of Indonesia has also provided increased funding for the Smart Indonesia Program (PIP), as well as adding college students as target recipients with an achievement of 18.1 million students in 2021 and a target of 17.9 million students in 2022 with a budget allocation of 9.7 trillion Rupiah (653, 1 million USD). Other than that, there is also the provision of Affirmation Scholarships for secondary education and higher education for students in the 3T region, Papua and West Papua, as well as Indonesian migrant workers with a total budget allocated around 10.3 trillion Rupiah (693,5 million USD) in 2022.

   The implementation of existing policies is certainly faced with various challenges. Several ways forward to ensure the sustainability of the program could be carried out through:
   a. Strengthening the synergy, coordination and collaboration between ministries/agencies related to local governments and teachers as field agents to ensure that quality education is accessible to all levels of society;
   b. Using The National Assessment (AN) results that can be accessed in the Education Report Card are used as material for evaluation and reflection of education units and local governments in improving student competencies and realizing inclusive education units. AN focuses on the literacy and numeracy competencies of students as well as a survey of the learning environment;
   c. Creating more innovative learning methods in contextual 3T areas so that they can reach children in 3T areas whose conditions vary (e.g. in some areas in Papua, boarding schools can be used, in island areas they can provide boat schools, etc.);
   d. Cooperation in various programs with the business world and or the industrial world as well as other Educational Organizations, by giving back to business world and industries (DUDI) in the form of awards or other incentives (for example in the form of tax deductions, or others);
   e. Increased socialization by local governments and agencies related to the Ministry's new policies relating to efforts to expand access to quality education to the community in the regions by also involving influential organizations and community leaders in the regions;
   f. Equitable development of facilities and infrastructure in the 3T area;

     g.   Improving the quality of human resources for education personnel for the 3T region by providing special assistance and training;

     h.   The regional education office must be able to ensure the availability of health facilities and services in educational units in the region.

2. Obstacles in implementing the *Merdeka Belajar* policy in the regions also need special attention so that equitable access to education for all can be carried out properly. Several steps forward to support the implementation process can be done by:
   a. Encouraging local governments to allocate education budgets of at least 20% of their Local Government Budget (APBD) in accordance with the constitutional mandate. In addition, the determination of the value of 20% is a separate budget from teacher salaries;
   b. It is necessary to simplify the language to convey the concept of the *Merdeka Belajar* Curriculum to parents, so that they can understand better and collaborate with schools to jointly help children achieve learning goals;
   c. There is a need for an equalization of the paradigm of the management of the education system that refers to the principles of *Merdeka Belajar*;
   d. Strengthening communication and closer collaboration between ministries, agencies, local governments and education offices;
   e. Local governments and education offices synchronize and harmonize policies at the regional level;
   f. Involving *Guru Penggerak* or Master Teacher in the dissemination of national policies in the regions.

3. The efforts that have been made by the Government of Indonesia in eradicating intolerance, bullying, and sexual violence, have been continuously and holistically addressed by:
   a. Establishing regulations to address those challenges; National Policy on the Prevention and Overcoming of Violence in the Educational Environment and the Prevention and Handling of Sexual Violence in Higher Education Environments;
   b. Implementing *Roots* program, which in collaboration with UNICEF to prevent bullying in junior high, senior high and vocational school (SMP, SMA/SMK);
   c. Forming a task force for the prevention and handling of violence in education units by collaborating with various stakeholders.

4. Challenges to increase the student sustainability rate from junior high school to high school level, which is only 87% in 2020, requires a better approach in terms of regulation and implementation. Some of the best ways forward from the national consultation are:
   a. Ensuring the improvement of the quality of learning at the elementary and junior high school levels before focusing on the formulation of the 12-year compulsory education;
   b. Providing subsidies to poor students effectively so that students stay in school and continue their education without being hindered by economic problems;
   c. Fulfillment of the 9-year compulsory education and preparing the draft on 12-Year compulsory education;
   d. Directing Regulatory arrangements to increase the relevance of secondary education from the point of view of students and parents, which can be caused by motivational factors;
   e. Encouraging public-private partnership to increase access to government financed education
   f. Involving of organizations and community leaders who are influential in the region in socializing the importance of continuing education to the high school level;

    g. Encouraging the participation of parents and families in increasing awareness of the importance of the 9-year compulsory education program.

5. In order to increase student participation in early childhood education (PAUD) and increase the establishment of PAUD centers in villages, the Government of Indonesia has accredited PAUD centers and Non-Formal Education (PNF) units to 18,491 institutions by 2021 and is targeted to achieve 35,000 institutions by 2022. In addition, strategies for future steps that can be taken are:
   a. Encouraging local governments to develop PAUD centers to fulfill the One Village One PAUD policy;
   b. Encouraging the private sector to contribute in building One Village One PAUD;
   c. Develop and improve the quality of the PAUD curriculum that prioritizes character education and strengthening the implementation of Holistic-Integrative PAUD;
   d. Developing PAUD education side by side or in collaboration with the POSYANDU program which has expanded to remote villages throughout Indonesia.

6. The implementation of regulations regarding children with special needs can be further improved by:
   a. Reviewing and improving the implementation of government regulations related to Adequate Accommodation for Students with Disabilities;
   b. Improving the competence of disability service units in every educational institution;
   c. Facilitating educational institutions with Disability Service Units (if not already available);
   d. Providing a school counselor in schools who can be a place for parents to consult in assisting children with special learning needs;
   e. Disseminating and debriefing to all stakeholders of the education unit in order to prepare for the independence and presence of children with special needs in their environment.

7. The need to reactivate the Board of Education Council as stated in the national education system law in Indonesia, is expected to provide support for the improvement of the quality of education services by providing opinion, direction and support for personnel, facilities and infrastructure, as well as education supervision at the national, provincial, and regency/city levels. In addition, some things that can be improved with the reactivation of the Board of Education are:
   a. The development of the board of education council is one of the responsibilities of the ministry in charge of education. Therefore, central government needs to encourage the synergy between the board of education and the regional education office must be further enhanced with better collective efforts;
   b. Development of the governance of the board of education as a forum that voices the aspirations of the community and parents to the local governments/schools;
   c. Election of members of the board of education that should be transparent and in accordance with qualifications at the national, provincial, and regency/city levels.

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2. Learning and Skills for life, work and sustainable development

Transformation Policies:

Aligning vocational education curricula could make great talents capable with the industry world. As a strategic policy, the Government has changed the curriculum from supply-driven into demand-driven as well as real project-based learning from the world of work with the teaching factory concept. One concept such as Multi Entry-Multi Exit (MEME) is an alternative to managing

Vocational Schools (SMK) so that students can get flexibility in completing their education. Collaboration with higher education and strengthening partnerships will expand networks with the business world and industries (DUDI and IDUKA) as learning partners to train soft and hard skills for both students and teachers through internship programs. Local governments also play an important role in monitoring and evaluating these issues.

Emancipated Learning is standing to provide a wider space for character development and basic competencies that reconcile with student abilities. For higher education, students can determine elective subjects according to their interests and talents. The preparation of the curriculum also involves collaboration between Educational Institutions and qualified practitioners in various industrial fields, that are practical and relevant to the industries, and internships so that students have lifelong learning experiences. In addition, the Government also provides space for the mass community to improve and transfer skills through the provided facilities.

Education for sustainable development is an approach that is implemented through the school curriculum that aims to cultivate knowledge, skills, values, and attitudes that support individuals, schools, and communities to have an ecologically, socially, and economically sustainable future. In the context of strengthening the environment from both natural and social aspects, the elementary schools have a science subject achievement that is directly integrated with ESD and SDG issues. In addition, literacy and numeracy are the focus of competency strengthening as stated in National Education Standards. College students in their 3rd semester can get any subjects that are out of their major subjects. This policy provides broad opportunities for students to enrich and improve their insight and competence that are in line with their passions and aspirations.

The Pancasila student profile strengthening project integrates local wisdom-based education with project-based learning, which could enhance inclusivity so that becomes a modal for students who are having a mindset of peace, problem-solving skills in various conditions, as well as showing responsibility and concern for the surrounding issues and being able to promote Indonesian culture in the national and international arena. The green school program is implemented at every education level to respond to global challenges in character and environmental protection in school management to support sustainable development. In the future, it is necessary to conduct research on the influence of local wisdom education in supporting the character or competencies of the students.

As an archipelagic country, Indonesia is vulnerable to natural disasters. The National Disaster Management Agency (BNPB) and the World Bank data said, around 75% of schools in Indonesia have been identified as prone to disaster risk areas. Henceforth, the government implements the Disaster Safe Education Unit (SPAB) program for schools located in vulnerable areas to minimize the risks of the disasters in the Ministry of Education regulation.

As a manifestation of commitment to providing equitable, quality, and sustainable access to higher education, the Government provides education fund support through the *Bidik Misi*, Smart Indonesia Card, Single Tuition Fee programs for top students from low-middle economic families who are eager for higher education level. Since 2020, School Operational Assistance (BOS), has succeeded to accelerate and increase funding for Early Childhood Education (PAUD) and Equality Education (BOP PAUD).

The Government also provides continuous assistance and guidance for teachers in remote areas by giving them special allowances. This is a form of appreciation and could increase their

enthusiasm for teaching. The policies shall apply for the teachers in remote areas at all levels of education in the future.

1. Not all vocational education institutions have the necessary tools and infrastructure to produce competent graduates according to the work world's needs;
2. Not all teachers have the competence needed to teach students according to the growth of industrial needs;
3. Lack of teachers who have competence in the vocational field;
4. The curriculum is drafted by teachers, principals, supervisors and committees;
5. The implementation of learning has not involved industrial teachers in schools;
6. Multi-entry and multi-exit administration is too complicated;
7. The registration and administration system of Kampus Merdeka was considered too complicated.

Currently, vocational education facilities and infrastructure in Indonesia have not met the needs of the industry. For this reason, the central and local governments need to involve the business world and industries (DUDI) in providing facilities and infrastructure that are run under the regional public service scheme (BLUD) as a general practice tool in developing teaching factories that are close to industry needs. In line with this, the link and match between the world of vocational education institutions and DUDI need to be strengthened by the pitching method to attract industry partners to become partners in the vocational unit. In addition, the government needs to empower the special job market (BKK) as an effort to bridge cooperation between schools and the world of work and increase the resources of vocational school graduates.

To improve the competence of vocation teachers needed to teach students by the development of industry and sustainable needs requires policies for the upskilling and reskilling programs of the vocational teacher, allowing teachers to participate in training or flexible workshops, bringing the guest teachers of the industry, organizing occasionally creative and innovation competitions.

The government's efforts to address the lack of vocational teachers' competence have given practitioners the opportunity to teach in schools or colleges by filling pedagogies and recognition of competence in conjunction with the periodic background of the industry, Promoting new students to vocational programs that are less desirable by providing scholarship services for accredited vocational education graduates to continue higher ranks for the rest are assigned as productive teachers at their home schools.

The preparation of the curriculum only by teachers, principle, supervisors, and committees, it is necessary to align the curriculum to foster a critical thinking ability that ordeals with future challenges, and therefore it will involve DUDI in the process of setting up the curriculum for input on needed competence and curriculum for teaching practitioners not only an application of project-based learning but active learning and blended learning. Synchronization of competence expertise with vocational schools is also required in the educational education institutions (LPTK) in each area.

The implementation of the learning process has not yet been present in industrial teachers in schools, so the guest teacher/guest instructor program from DUDI and vocational school alumni needs to be intensified, besides that it can also collaborate with practitioners from various

teaching fields in LPTK that are in accordance with school needs to make it easier and more affordable.

The concept of multi-entry-multi-exit (meme) as an alternative to managing a vocational high school (SMK) has complicated administrative constraints. To overcome this, requires an integrated digital data system, accessible, updated, controlled, and secure. Implementation and interventions for education management may be conducted through consultative and asymmetric referrals, improving school resources, data-based planning, and digitalization of schools

The Kampus Merdeka Policy aims to encourage students to master various sciences that are useful for entering the world of work. But the implementation of the registration and regulation system is considered too complicated, especially in campus internal regulations. Therefore, the government has provided the "SatuDikti" platform as an integrated big data system to support various services in universities. The readiness of campus management is also needed to improve the ability and use of sustainable technology as a whole.

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3. Teachers, teaching and teaching profession

<div style="background-color:green;">Transformation Policies:</div>

Indonesia manages the 4th largest education sector in the world with more than 50 million students living on 17 thousand islands with high socio-cultural, economic, and geographical diversity. Fulfilling the adequacy of the number and quality of teachers is one of the major challenges that must be faced so that educational transformation can continuously improve the quality of student learning outcomes.

To add the valuation of teacher competence, the Government launched the Master Teacher Programme (Guru Penggerak), which emphasizes the quality of training and mentoring. The goal is to escalate the competency of teachers and school principals to be able to lead the educational ecosystem which improves the quality of student learning processes and outcomes. The Activator Teacher Program also synergizes with the Activator School Program to improve the quality of education in Indonesia.

One of the stimulants for novice teacher's competencies is the Teacher Professional Education Programme, as stated in a national level Government Regulation. This program obtains educator certificates in early childhood education through formal education, basic education, and/or secondary education, both from education and non-education held after they get their undergraduate program. It enhances pedagogic, social, professional, and personality competencies to start a career as a professional teacher, as well as to gain recognition as a professional teacher.

Teachers could also reach their maximum competencies by getting Endowment Fund Scholarship that is specially made for teachers, they can consider certification courses to increase the professionalism of their profession.

As an educator, teachers also have the right to develop themselves to learn leadership and teacher independence in professional development. Teachers can prioritize coaching and on-the-job training to ensure the learning theories can be transformed into the classroom and

have an impact on improving the quality of learning outcomes. Teachers are also given the opportunity to hold competitions that can improve students' abilities and creativity.

Appropriate awards and affirmations also occur for teachers. All of those strategies could be drawn in the national assessment report which can be a benchmark for education institutions.

The Master Teacher Program and its support team including any stakeholders are expected to build a Pancasila Student Profile with global skills so that they are able to become the key to transforming education to achieve the vision of the Sustainable Development Goals.

Challenges highlighted:

1. Not all teachers enthusiast to join the Master Teacher Programme (*Guru Penggerak*) (they may afraid it will add their workload);
2. The number of Educational Personnel Education Institutions (LPTK) in Indonesia is still limited;
3. The comprehensive information about PPG Prajabatan programme is still limited;
4. The national regulations that stated in Director General of Teacher and Education Personnel About Competency Model in Teacher Professional Development (*Perdirjen GTK No.6565 year 2020*) has not been fully known by many educational actors;
5. The lack of facilities and infrastructure to develop a digital ecosystem, especially in the remote areas;
6. The number of human resources who understand the digital transformation ecosystem is still very limited, which may indicate the digital literacy gap between regions is still very high.

Way forward:

1. Although the Master Teacher Programme (*Guru Penggerak*) is one of the successful approach that has impactful results in the educational transforming policies, it still has many challenges, the particular mentioned needs to get further attention:
   a. Local governments need to improve their efforts in order to encourage teachers in their regions to participate in the Master Teacher Programme (*Guru Penggerak*);
   b. Develop technical guidelines to ensure the National Regulations policy of Master Teacher Programme (Permendikbud No.26, 2022) can be implemented in a wholesome and holistically way;
   c. The socialization and dissemination of the Master Teacher program needs to be well planned, well manage, and massive to all over Indonesia;
   d. The education agencies must always urge schools to motivate teachers to join Master Teacher program;
   e. Fully support the National Regulations (Permendikbudristek No. 26 of 2022) regarding Master Teacher Program as well as the implementation of Permendikbudristek No. 40 of 2021. The teacher needs to know that in order to become headmaster in the future, they need to have the Master Teacher

Program certificate. This is one of the efforts made to improve the quality of learning and become superior and innovative learning leaders;

f. Build a periodic feedback system to ensure the achievements and impacts of the Master Teacher Program in each regions;

g. Needs to review and monitor the selection process due its long and uncertain period.

2. In order to improve the quality of teachers in Indonesia, the government has paid attention to the Educational Personnel Education Institutions (LPTK), universities which handle teacher education. The solutions that aim at solving the obstacles are by:

a. Increasing the number and quality of LPTKs and similar institutions as Pre-Service Teacher Professional Program (PPG Prajabatan) organizers;

b. Issuing regulation on the distribution of LPTK to ensure that they are not only located in big cities;

c. Encouraging non-LPTK institutions to organize Pre-Service Teacher Professional Program to speed up the fulfillment of teachers' shortage;

d. Encouraging nearby universities in the regions to open LPTKs so that teachers who participate in PPG do not have to leave their main duties;

e. Realigning the modules of the Pre-Service Teacher Professional Program with the modules of Motivating Teachers Program (Program Guru Penggerak);

f. Providing a learning platform for teachers' learning.

3. The next challenges that arise in connection with the Pre-Service Teacher Professional Program (PPG Prajabatan) is the limitation of information for some teachers and educational personnel. From the National Consultations, some way forward are as follows:

a. It is necessary to involve the Provincial Education Office in planning, implementing, monitoring, evaluating and reporting as well as PPG socialization in all channels (print and online media) and through coordination meetings;

b. The need for a more comprehensive and appealing strategy to make the teaching profession an attractive profession for the younger generation.

4. To maximize the socialization of the Competency Model in Teacher Professional Development, central government regulations are needed in order to achieve the potential results of the transformation of education policies. To achieve the expected results the following are some suggestions:

a. More intensive socialization of the competency model of teachers and learning leaders and their implementation to all related stakeholders.

b. Building a strategic and close coordination with the Education Quality Assurance Center (BPMP) in each Region.

c. Using the Competency Model as the basis for all Teacher Training and Teacher Education Programs.

To overcome The lack of facilities and infrastructure to develop a digital ecosystem, especially in the remote areas, some ideas presented are:

a. The need for cooperation and commitment from various parties, both the Central Government, Regional Governments, other ministries and Private Sectors in building a digital ecosystem network;
b. Creating a Digital CSR Education program or policy to help procure infrastructure;
c. Strengthen the Provision of ICT infrastructure in schools in the 3T area.

And the last aggregation for the issues related to teacher, teaching, teaching professions issues are the literacy gap across Indonesia, so these initiatives expected to bring solutions onward:

1. Encouraging all teachers to use the independent teaching platforms (Platform Merdeka Mengajar) developed by the government to support teachers to manage their classes more effectively according to the context of their schools.
2. Utilizing University Student Teaching Program, as part of an independent campus to meet resources needs related to digital literacy.
3. Requiring digital competency criteria in the recruitment and selection of teachers/educational staff (applied for CPNS and PPPK).
4. Creating a roadmap for the ICT Education system from Early Education to Higher Education by referring to globally applicable ICT standards.
5. Determining the definition and standard of digital literacy. We proposed a globally applicable standard endorsed by UNESCO and the Global Digital Literacy Council (GDLC), namely the Internet and Computing Core Certification (IC3).
6. Setting up collaboration between industry, academia, and the community is carried out to identify the demand and availability of skills for the digital era in the future.

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4. Digital learning and transformation

Transformation Policies:

The Covid-19 pandemic has brought more challenges and impacted the most vulnerable groups of families and students who live in disadvantaged areas where digital infrastructure is limited. However, it also stimulated opportunities and innovations in digital areas, which led to accelerating digital adoption a few steps forward.

The Government seeks to address this situation by strengthening the digital capabilities of institutions, facilitating learning through digital methods, and accelerating the school's resources. Digital learning platforms provided for educators and learners can help them deliver new ways and project-based learning to students, and enable them to develop mindsets to encourage a student-centered approach to the digital and global economic challenges in the future.

Government helps to enable skills upgrading on a large scale to facilitate a smooth transition, which gives students the opportunity to master practical knowledge and acquire skills that are useful for their future careers. Stakeholders are also invited to become agents of change to create new career paths, build and nurture communities of practice that can drive digital transformation and digital literacy from the ground

up, and increase access through the use of online repositories and peer-to-peer learning platforms.

Infrastructure and connectivity are the main prerequisites in digital services. The relevant ministries design and implement superior connectivity programs including to utilize public service obligation funds to cover the required financial needs.

School Operational Funds (BOS) are also carried out through the School Procurement Information System (SIPLah). SIPLah is an electronic system for managing BOS funds. The school principals feel more secure and can focus more on improving student learning outcomes. SIPLah makes the transaction recorded and it's easier to monitor, thereby reducing corruption and collusion. SIPLah is a legitimate Government's real commitment to transforming technology to support efficient, safe, and accountable school spending.

During and past pandemic conditions, Emancipated Learning provides freedom for schools to choose the curriculum provided that best suited their context and decide the learning mode for their students. The government has provided a learning channel that can be used by teachers, students, and parents, as a form of digitizing schools. Those initiatives show the major transformation in the use of technology for both learning and education management. Diverse platforms have been developed to make it easier for teachers to study, administer learning, and manage school finances, and administration.

Challenges highlighted:

1. Digital literacy of teachers is still relatively low
2. Not all schools have been able to take advantage of the platform built by the Ministry of Education and Culture, including SIPL, because it is constrained by internet access and technology media, as well as human resource competencies.
3. Awareness has not yet been awakened to use the Ministry of Education and Culture's website, applications and social media as the main reference for information about education.
4. The platform provided and developed by the Ministry of Education and Culture has not been fully utilized by education actors.

Way forward:

1. To improve the teachers' digital literacy, it is important to increase the quantity and quality of training related to the use of technology in management and learning processes;
2. Local governments need to allocate budgets from the RAPBD to meet the needs of internet access and media needed by schools so that they can take advantage of the digital platforms provided by the Ministry of Education and Culture, including SIPLah. Collaborate with relevant Ministries/Agencies to ensure that all schools have access to a good internet network. All transactions carried out by educational units must go through SIPlah; create a Digital CSR Education program or policy to help procure infrastructure;

3. The need for intensive socialization and assistance in utilizing the Kemendikbudristek website for information purposes about education; the need for cooperation and commitment from various parties, both the Central Government, Regional Governments and Private Sector in building a digital ecosystem network;
4. It is necessary to intensify the socialization of the Kemendikbudristek platform to education actors and the community [community and parents of students].

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5. **Financing of education**

<div style="background-color:green; text-align:center">Transformation Policies:</div>

To show the commitment to Education, the Government of Indonesia, as mandated by the law, allocates at least 20 percent of the National and Regional Revenues and Expenditures Budget (APBN and APBD), an education budget to meet the needs of the implementation of national education. Even during the Covid-19 pandemic, the budget is not decreased. In addition, Indonesia also has a sustainable education endowment fund. The management of the education endowment fund aims to ensure the sustainability of educational programs for future generations as an intergenerational responsibility.

In the era of transparency and openness, the Government is challenged to find strategic solutions to make education funding more transparent, accountable, faster, and on target. The programs that are being implemented by the Government such as the reforming of the School Operational Assistance (BOS) fund, the School Procurement Information System (SIPLah), the transformation of government funds for Higher Education (the Matching Fund program (partnership program)) and the Competitive Fund (the competition program of Independent Campus (Kampus Merdeka)); Vocational Campus Matching Fund; Operational Assistance for the Implementation of Early Childhood Education (BOP PAUD), and Operational Assistance for the Implementation of Equivalent Education (BOP Equivalence); distribution of the Smart Indonesia Card (KIP).

In 2021 the central government distributed BOS fund IDR 53,4 billion to more than 216 thousand schools in order to fulfill operational expenditure needs. The total BOS funds increased from IDR 51,2 billion (2019) to IDR 53,4 billion (2021). The schools also spent BOS funds flexibly according to their needs, including completing the Limited Face-to-face Learning (PTM) checklist. The flexibility in BOS funds spending is much needed during the Covid-19 pandemic, but the school principals are often becoming intimidation targets. The distribution of BOS funds is supported by a reforming program which has been named "the School Procurement Information System (SIPLah)". Whilst, the reforming of the School Operational Assistance (BOS) policy for 2020–2021 has a real impact on schools and has received positive public responses.

In terms of funding at the higher education level, Indonesia is still lower than other countries. The transformation of Indonesian government funds for higher education is carried out through the Matching Fund program and Competitive Fund (Kampus Merdeka competition program). With this transformation, universities are expected to produce graduates who have knowledge and skills that could be directly used by the

industry and business world, besides having creativity and entrepreneurial spirit with social sensitivity and a global perspective.

In line with the level of funding in higher education, the Government also implements the Independent Vocational Campus program. The two main focuses of this program are the Vocational Campus Competitive Fund (Vocational Competitive Fund) and the Vocational Campus Matching Fund (Vocational Matching Fund). The Vocational Campus Competitive Fund is divided into the fast-track of vocational high school to diploma degree programs and the study program improvement programs. The Vocational Campus Matching Fund is intended to develop the Excellence Center of Technology, downstream the applied research products, and create Vocational Campus startups that are built with the working world. The transformation of the Vocational Campus Matching Fund aims to increase cooperation between vocational higher education and the working world in order to produce products that could be commercialized and to increase the use of teaching factories/practical laboratories for project-based learning to fulfill products ordered by the working world.

In addition to the programs already mentioned, the Government is also implementing the Smart Indonesia Program (PIP). PIP is a program that provides assistance to students (elementary school to college students) who come from poor or vulnerable families in the form of cash, access expansion, and learning opportunities. The product of PIP is Smart Indonesia Card (KIP). KIP is a card given to students in formal or non-formal education units and used as an identity to get PIP funds. In 2021, PIP funds were distributed to 18,084,978 students (elementary school, junior high school, high school, and vocational school).

<div style="background-color:green; text-align:center;">Challenges highlighted:</div>

1. BOS funds, Matching Fund and Competitive Fund are vulnerable to misuse due to a lack of transparency in its distribution and the funds are often late in its disbursement, The distribution of BOS funds is often not on target thus its absorptions are not optimal,
2. The SIPLah application users still lack digital literacy, especially those who are located in rural areas,
3. The price of goods in SIPLah is higher than the market price.

<div style="background-color:green; text-align:center;">Way forward:</div>

1. In order to minimize the misuse of BOS funds, Matching Fund and Competitive Fund, there should be monitoring systems that enable the distribution of the funds. It must be distributed transparently, timely, targeted, and effective by utilizing digital applications. The government needs to increase the flexibility of BOS funds usage and access to reduce budgeting abuse, especially in remote areas; improving supervision in the distribution of BOS funds through collaboration with the Government's Internal Supervisory Apparatus and schools, building cooperation between Ministries/Agencies and Regional Governments in the effort to integrate One Big Data; conducting periodic monitoring and evaluation in order to improve the quality of supervision on data recording;

2. Training for school administrative staff is required in order that they can operate the SIPlah application; conducting guidance and socialization regarding how to use the application; providing proper technological equipment facilities as well as adequate internet connection;

3. Synchronizing the SIPLah application with the catalog so that the provision of government goods/services becomes more abundant and in accordance with the required specifications; adjusting the price of goods/services in the SIPLah application with market prices so that users can more efficiently spend their budgets.