

**Summary of the Priority Topics proposed by SAC members**

**“Materials (Nanotechnology)” field**

<b>SAC Member</b>	<b>Priority Topics</b>
MOH of Cambodia	
Ristekdikti of Indonesia	Polymer-based solar cell technology and DSSC, Superfiber Products/ complex material from waste
JST of Japan	
AMED of Japan	
DOST of Philippines	Nanotechnology from indigenous materials
NSTDA of Thailand	Nanotechnology for Bio-Nano Materials System, Additive Manufacturing, Laser Technology (Materials Joining)
NIAID of USA	

**“Alternative Energy” field**

<b>SAC Member</b>	<b>Priority Topics</b>
MOH of Cambodia	
Ristekdikti of Indonesia	Design of integrated and massively power generation bioenergy (biomass, biogas, biodiesel), The prototype of 5 MW Geothermal Power Plant
JST of Japan	Biomass Energy
AMED of Japan	
DOST of Philippines	Test fields for appropriate wind power turbine/propeller design Use of composite materials
NSTDA of Thailand	Investigation of Efficiency, Reliability, and LCOE of Solar Photovoltaics in ASEAN region
NIAID of USA	

**“Agriculture (Food)” field**

<b>SAC Member</b>	<b>Priority Topics</b>
MOH of Cambodia	
Ristekdikti of Indonesia	Breeding with genetical engineering technology, Technology for Agricultural wet marginal land
JST of Japan	Food crops production adaptive to global warming
AMED of Japan	
DOST of Philippines	Biotechnology related to microbials, Nanotechnology for agriculture
NSTDA of Thailand	Functional Ingredients
NIAID of USA	

**“Health Research (Infectious Diseases, Cancer)” field**

SAC Member	Priority Topics
MOH of Cambodia	<p>Infectious diseases:</p> <ul style="list-style-type: none"> <li>-Surveillance &amp; response to emerging &amp; re-emerging diseases</li> <li>-Laboratories, biosafety &amp; biosecurity</li> <li>-Zoonotic diseases, Anti-microbial resistance (AMR),</li> <li>-One Health Approach (Intersectoral, interdisciplinary coordination),</li> <li>-Climate change and infectious diseases</li> <li>-Prevention &amp; control of key priority infectious diseases including neglected tropical diseases (viral hepatitis B/C, dengue, hand-foot-and-mouth diseases, parasitic infections) including epidemiological data</li> <li>-Cross-border cooperation on communicable diseases (HIV/ADS, TB, Malaria, Dengue, AMR, Foodborne diseases, Hand-Foot-and-Mouth Disease, ...), Pandemic preparedness</li> </ul> <p>Non-communicable diseases Cancer-related infectious diseases (viral hepatitis, Helycobacter pylori, ...) , Other types of cancer, Nutrition</p> <p><u>Research agenda for both infectious diseases &amp; non-communicable diseases:</u> Diagnosis &amp; epidemiological data (Identify problem &amp; its burden),Determinants (Identify causes of the problem), Development of new tools and new strategies (Identify solutions to the problems), Evaluation of the impact of the intervention (Identify impact of the solutions)</p>
Ristekdikti of Indonesia	Development of infectious diseases detection, Electromedical devices.
JST of Japan	
AMED of Japan	
DOST of Philippines	<p>ICT application on health (for dengue and other infectious diseases)</p> <ul style="list-style-type: none"> <li>- Development of user-friendly ICT solutions to hasten processing of health information systems</li> <li>- ICT-enabled disease management and decision support models</li> </ul> <p>Anti-microbial resistance (e.g. tuberculosis)</p> <ul style="list-style-type: none"> <li>-Use of molecular and genomics technologies in the design of vaccines, therapeutics and diagnostic devices or products</li> <li>- discovery of new drugs</li> <li>- vector management and control of dengue</li> <li>- development of diagnostic kits</li> </ul>
NSTDA of Thailand	Emerging/re-emerging diseases, Antimicrobial resistance
NIAID of USA	<p>1.Standardized and cpecific health statistic information on morbidity and mortality of important diseases by demographic variables such as age, sex, urban/rural, etc</p> <p>2.“One Health” studies of the relationships between human &amp; animal health and the environment, e.g., influenza, arboviruses, antibiotic use in agriculture</p>

**“Disaster risk Reduction and Management” field**

SAC Member	Priority Topics
MOH of Cambodia	
Ristekdikti of Indonesia	Detection technology for hotspots, weather modification technology, and the water bomb technology for fires landforest, integrated technology for the emergency response information system
JST of Japan	Hazard assessment of severe storms and enhancement of resilience to strong winds and floods
AMED of Japan	
DOST of Philippines	
NSTDA of Thailand	Multi-sensor Data Fusion for Landslide Monitoring and Prediction Systems
NIAID of USA	

**“Advanced Interdisciplinary Research towards Innovation” field**

SAC Member	Priority Topics
MOH of Cambodia	
Ristekdikti of Indonesia	ICT systems for SMEs, supply chain business, and payment gateway system, Big Data technologies to other sectors
JST of Japan	Discussion program for AI, IOT, Big Data
AMED of Japan	
DOST of Philippines	Smart electric grids Mechatronics
NSTDA of Thailand	Traction and Charging Infrastructure Development for Intelligent Electrified Transportation System in East Asia
NIAID of USA	

**“Environment (Climate Change, Marine Science)” field**

SAC Member	Priority Topics
MOH of Cambodia	
Ristekdikti of Indonesia	Conservation and rehabilitation of marine ecosystems, The development of marine tourism industry
JST of Japan	
AMED of Japan	
DOST of Philippines	Benham Rise exploration
NSTDA of Thailand	
NIAID of USA	