

Economic Resilience: Energy Security				
No	Action Plan	Scope	Priority Location	Institution Involved
1	Cluster 1: Restoration and conservation of rainfall catchment areas to increase climate resilient of the area	<ul style="list-style-type: none"> Restoring and conserving rainfall catchment areas in river basin regions that become the sources of hydropower and geothermal energy stations 	33 Provinces in Indonesia that are Priority Areas in line with the issue and focus of activities	Ministry of Forestry, Ministry of Agriculture, Regional Government
2	Cluster 2: Expansion of utilization of renewable energy sources to increase climate resilient of the area	<ul style="list-style-type: none"> Expansion of the utilization of renewable energy sources by optimizing the utilization of organic wastes for the production of gas and energy in densely inhabited areas thereby reducing the load to the environment and increasing the tolerance range of the area to highly extreme rainfall occurrences expanding the utilization of pico and micro scale hydro-power sources in isolated areas as part of the program of developing energy self reliant villages (DME) that can encourage communities to preserve the environment and sustainability of environmental services. 	33 Provinces in Indonesia that are Priority Areas in line with the issue and focus of activities	Ministry of Energy and Mineral Resources, Regional Government, Ministry of Forestry
3	Cluster 3: Development of innovative and adaptive technology for the cultivation of energy plantations	<ul style="list-style-type: none"> Technology for increasing production of quality seeds of forest plants and energy plantation with high yields and resilient to climate change Development of Bio Energy such as carbohydrate (bio etanol), fat base (bio diesel), cellulose and hemi-cellulose, 	Java, Sumatera, Bali, Sulawesi	Forestry Research and Development Agency, Agriculture Research and Development Agency
4	Cluster 4: Supporting system	<ul style="list-style-type: none"> Supporting activities in the form of scientific studies on vulnerability of the system of PLTAs (HydroPower) against the impact of climate change Development of technology for cultivation of BBN crops that are resilient to climate change 	33 Provinces in Indonesia that are Priority Areas in line with the issue and focus of activities	Ministry of Forestry, Ministry of Public Works, Ministry of Energy and Mineral Resources

Livelihood Resilience: Health				
No	Action Plan	Scope	Priority Location	Institution Involved
1	Cluster 1: Identification and controlling of factors of vulnerability and risk to community health that can be caused by climate change	<ul style="list-style-type: none"> Strengthening and updating of data and information base that are related to to the climate, diseases, and community health. Mapping of popualtion and regions that are vulnerable to climate change. Observation and controlling of agents of diseases, quaity of the environment and infection to human, particularly of vulnerable groups : women, children, and the aged. 	National	Ministry of Health, Indonesia Science Institution (LIPI), Agency for Technology Assessment and Aplication, Ministry of Environment, Geospatial Information Agency
2	Cluster 2: Strengthening the system of awareness and utilization of the early warning system to the spread of communicable and non communicable diseases attributed to climate change	<ul style="list-style-type: none"> Increasing the system of responsive to climate change in the health sector 	National	Ministry of Health, Indonesia Science Institution (LIPI), Agency for Technology Assessment and Aplication, Ministry of Home Affairs, Agency of Disaster Management, Ministry of Communication and Information, Ministry of Planning (Bappenas)
3	Cluster 3: Strengtening of regulations, laws, and institutional capacity at the central and regional levels against risks to community health than be caused by Climate change.	<ul style="list-style-type: none"> Strengthening of regulations, laws, and institutional capacity 	National	Ministry of Health, Ministry of Planning (Bappenas), Ministry of Home Affairs, Agency of Disaster Management
4	Cluster 4: Increasing knowledge, innovation, and participation of the general public in relation to health adaptation to climate change	<ul style="list-style-type: none"> Research, education, and development of technology that are related to climate change and adaptation that are related health 	National	Ministry of Health, Ministry of Public Works, Agency for Technology Assessment and Aplication Ministry of Research and Technology, Ministry of Public Works, Agency of Disaster Management

Livelihood Resilience: Settlements				
No	Action Plan	Scope	Priority Location	Institution Involved
1	Cluster 1 : Studies and Research	<ul style="list-style-type: none"> Studies and socialization of multi-story houses in coastal areas 	Pilot study in high risks regions	Ministry of Public Works, Ministry of Community Housing, Ministry of Marine and Fishery
2	Cluster 2 : Development and management of settlements	<ul style="list-style-type: none"> Provision of infrastructure that is responsive to climate change in urban housing areas and Provision of housing infrastructure in areas that are vulnerable to disasters. 	Pilot study in urban areas on coast line areas and/or passed by large rivers that are prone to floods and landslides	Ministry of Public Works, Ministry of Community Housing, Ministry of Marine and Fishery
3	Cluster 3 : Community empowerment endeavors	<ul style="list-style-type: none"> Increasing public awareness on adaptation to climate change in urban and rural areas. Increasing community participation and capacity in the PRB in vulnerable areas. Alertness against disaster due to climate change in vulnerable areas. 	National	Agency of Disaster Management, Ministry of Home Affairs, Ministry of Social, Ministry of Research and Technology, Ministry of Marine and Fishery, Agency for Technology Assessment and Application, Ministry of Energy and Mineral Resources, Ministry of Communication and Information, Indonesia Science Institution (LIPI), Ministry of Planning (Bappenas), Ministry of Public Works, Ministry of Education, Ministry of Economy and Human Welfare
4	Cluster 4 : Increasing access to reasonable and affordable housing	<ul style="list-style-type: none"> Provision of settlement with strong structure, reasonable quality, and affordable 	Pilot studies in highly vulnerable areas	Ministry of Community Housing, Ministry of Public Works

Livelihood Resilience: Infrastructure				
No	Action Plan	Scope	Priority Location	Institution Involved
1	Cluster 1 : Studies on the concept of infrastructure resiliency	<ul style="list-style-type: none"> Research and development on enhancing resilience of the infrastructure that is adaptive to climate change 	National, coastline cities that are high risks	Ministry of Marine and Fishery, Ministry of Public Works
2	Cluster 2 : Improving access to roads and bridges	<ul style="list-style-type: none"> Reducing risks of disrupting functions of access to roads and bridges due to impact of climate change 	National, coastline cities, pilot studies in high risk areas	Ministry of Public Works, Ministry of Planning (Bappenas), Agency of Disaster Management, Regional Government
3	Cluster 3 : Strengthening of institutions	<ul style="list-style-type: none"> Submitting information on infrastructure that is resilient against climate change that has direct impact on community health and Provision of infrastructure on sanitation and waste processing that is resilient to climate change 	National, Pilot Studies in high risks areas	Ministry of Public Works, Regional Government
4	Cluster 4 : Integration to sustainable development	<ul style="list-style-type: none"> Application of city and area concept and structure based on studies of community vulnerabilities and application of green cities 	National High risk cities	Ministry of Public Works, Regional Government, Ministry of Planning (Bappenas), Indonesia Science Institution (LIPI)

Resilience of Environmental Services: Ecosystem and Biodiversity

No	Action Plan	Scope	Priority Location	Institution Involved
1	Cluster 1: Restoration/Improving Spatial Planning and Usage System of Land	<ul style="list-style-type: none"> Restoration of the macro plan on forest areas and marine ecosystems as adjusted to spatial planning that is climate proof in which control of the use of forest areas for development outside forest areas must take into account aspects on management of river basin areas in an integrated manner, taking into account the aspect of carbon emission, and mitigation of impact to sustainability of environmental services and services of other ecosystems. Restoration/improving of forest areas that can ensure the functions of the water system that is essential for supporting food security and energy security, including water inputs that ensures the utilization of water vapor for geothermal electricity power stations. 	Throughout Indonesia.	Directorate General Forest Planology, Ministry of Marine and Fishery, Ministry of Marine and Fishery, Meteorological Climatological and Geophysics Agency, Agency for Technology Assessment and Application, Ministry of Planning (Bappenas), Ministry of Environment
2	Cluster 2: Management and Utilization of Productive Areas in a Sustainable Manner	<ul style="list-style-type: none"> Studies on development of environmental services and natural tourism, Studies and preparation of certain regions as centers of production of certain forest yield Development of licensing for utilization of forest in an integrated manner 	Province with production forest	Ministry of Forestry
3	Cluster 3: Enhancing Management of Conservation and Essential Ecosystem Areas	<ul style="list-style-type: none"> Development of conservation and essential ecosystem areas Investigation and protection of forests Development of conserved and genetic species Development and management of coastal marine ecosystem areas 	Provinces that have National Parks	Ministry of Forestry, Police, Attorney, Indonesia Science Institution (LIPI), College, Ministry of Marine and Fishery
4	Cluster 4: Rehabilitation of Degraded Ecosystems	<ul style="list-style-type: none"> Development of program for rehabilitation of coral reef ecosystems Development of the program for the rehabilitation of forests and forest reclamation in priority river basin areas Development of the program of centers for forest seeds and seed that are resilient to drought and extreme weather Development and oversight of the management of river basin areas Facilitation and empowerment of traditional communities and social and cultural aspects of the community 	Sumatra, Bali, Kalimantan, Sulawesi, Maluku, Papua Java-Sumatra 108 Priority DAS (River Basin Areas)	Ministry of Marine and Fishery, Ministry of Forestry, Ministry of Home Affairs
5	Cluster 5: Reducing Threat To Ecosystems	<ul style="list-style-type: none"> Increasing supervision of management of peat land to prevent burning Identification and monitoring of forest fire risks Facilitation of the preparation without burning for traditional farmers Developing technology and capacity for controlling forest fires and land fires Facilitation of bilateral and multilateral relations on issues related to forest fires and land burning 	Sumatra, Kalimantan	Ministry of Forestry, Ministry of Environment, Ministry of Home Affairs, Ministry of Agriculture, Agency of Disaster Management, Ministry of Foreign Affairs