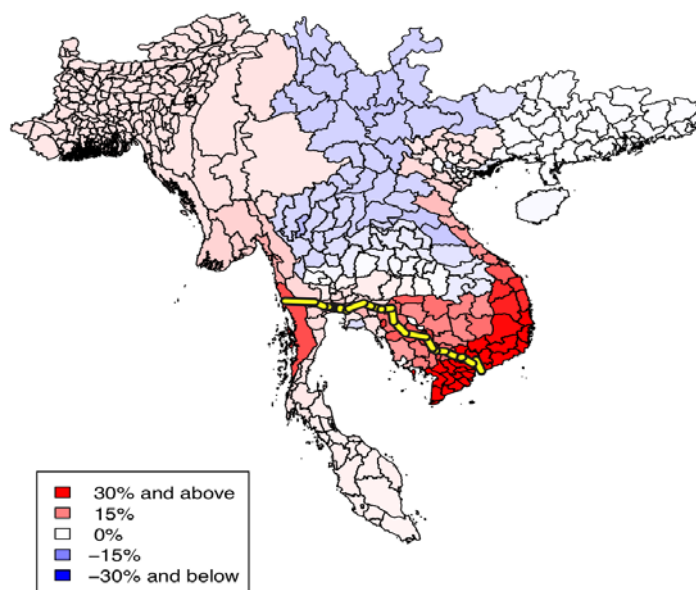


Figure 2: Impact of MIEC on Mekong/Malay Regional Economy



13.2 Impact on Trade

Properly estimated trade potentials help support the countries to take necessary policy measures – either to retool the export-led globalization process or to build/plan infrastructure (national and/or international) to support the country’s (or a region’s) growth and trade or the combination of both. The future trade potential (change in volume of exports) in MIEC has been estimated.

In case of Cambodia, the additional exports generated due to MIEC are estimated at USD 20 Billion and for Vietnam, the incremental exports would be around USD 132 Billion. Thailand, however would have the largest impact due to MIEC Corridor, the total incremental exports for Thailand as a result of MIEC would be around USD 292 Billion.

Table 10: Impact on Trade

Country	Incremental Exports (USD Billion) with MIEC
Cambodia	20.42
Vietnam	132.60
Thailand	292.62

14. Financing Mechanism for MIEC

MIEC would involve development of various infrastructure projects across sectors and countries through various suggested implementation structures. The funding for the proposed development is envisaged to come from government sources, multilateral agencies and private sector. Overall it is estimated that implementation of projects in MIEC region would require an investment of USD 88 Billion. The various project categories identified as part of corridor concept are presented below:

- Priority projects critical to create backbone transportation infrastructure
 - Road infrastructure projects
 - Logistics infrastructure

- Ports
- Key Projects
 - Road projects requiring capacity augmentation and to be developed as service links
 - Augmentation of rail linkages and development of connectivity to the identified investment regions/ industrial areas
 - Power plants
 - Knowledge city, education/skill development infrastructure
 - Provision/ augmentation of Health infrastructure
 - Special Economic Zones, Industrial Parks
 - Integrated Townships
 - Provision of requisite urban infrastructure
 - Augmentation of industrial areas etc.

The horizon for the development of various identified projects in corridor is considered as 10 years. The projects as envisaged under the larger framework of MIEC can be categorized mainly in four categories as:

- i) **Large Capital – High Return** (capital intensive in nature, requiring large upfront investments for the initial period, but have high financial returns over a longer period of time),
- ii) **Large Capital – Low Return** (involve huge capital investments but have lower returns, or the returns to be realized by the investor would be spread over longer time horizon),
- iii) **Moderate Capital – High Return** (projects that have low capital investments and high profitability for the investor over a comparatively shorter periods of time) and
- iv) **Moderate Capital – Low Return** (less capital intensive and also have lower returns on the investments viz. social projects).

Based upon the scale of capital involved and anticipated risk in the returns for various projects, the financial contribution of the identified stakeholders under each identified infrastructure project would vary significantly which may be depicted as follows:

Table 11: Classification of Projects based on Capital-Return Relationship

Stakeholders	Large Capital-High Return	Large Capital-Low Return	Moderate Capital-High Return	Moderate Capital-Low Return
1. Respective National Governments (Public Sector)	√	√		√
2. Multilateral Donor Agencies	√	√	√	√
3. Private Sector				
• PE Investors/Financial Inst./Investment Banks			√	√
• Private industrial groups/Corporate houses	√		√	

Due to current financial crisis, it may be difficult to source funding from the private sector for envisaged infrastructure projects in the initial phase of the project. This is primarily due to premature markets in the region, reduced risk taking capacity of private entrepreneurs for infrastructure projects, and lack of

market conviction on MIEC development. Hence, it would be imperative for the governments to take up the responsibility of funding the most of the major projects either through entire public funds (budgetary/multilateral assistance) or viability gap funding (which could either come from budgetary or multilateral sources as soft loans) in the initial periods, to instill the confidence in the private sector to participate in infrastructure development in long term horizon. Gradually, with financial environment improving, the projects (including existing projects) can be sold to private sector or riskier forms be employed.

There are some critical projects such as development of integrated cross-border check points, road projects in Cambodia and Myanmar, development of Dawei deep seaport, etc. which are not commercially viable at present due to nature of projects in terms of risk-return relationship, capital requirement, credit worthiness of some countries in corridor, etc. are proposed to be developed on priority through public finance to support the overall objective of MIEC integration. However, there is also a requirement of involving private sector in infrastructure development not only in terms of attracting funds (from private sector) but also in O&M of projects to bring private sector service delivery quality and efficiency. Therefore, in order to trigger the development of projects in corridor, a few projects based on qualitative risk-return basis, legal framework and history of private sector involvement in infrastructure development in countries in corridor, have been identified to be developed through private sector participation/public private partnership.

The funding sources for the projects shall be in terms of budgetary/extra budgetary, grants, soft loans, official development assistance (ODA), funds from capital markets, etc., from various category of stakeholders (governments of partnering countries, governments of other countries in the region, multi-lateral organizations and private investors, both domestic and international). The private sector funding shall mainly be divided following broad categories:

- 1) Financial Institutions/ Investment Banks including insurance companies, pension funds, mutual funds etc.
- 2) Private industrial groups with infrastructure development as core business activity / Corporate Houses who may be interested in funding project development activities with the objective of expansion of their business.
- 3) Apart from the above, Private Equity investors may also be interested in providing the equity capital to fund (PE Funds) the projects. Such dedicated PE fund(s) can be promoted for investment in MIEC region with focus on various infrastructure sectors with diverse group of investors.

In current financial crises, generating financial resources by issuing bonds may also be considered. It is envisaged that the respective countries would also create dedicated pool of financial resources to implement the projects in MIEC region. Based on preliminary assessment carried out for investments on implementation of these infrastructure projects, it is estimated that about USD 5.4 Billion would be required for implementation and about USD 0.08 Billion would be required to fund the project development activities of these projects. The broad distribution of sources of funding is as under:

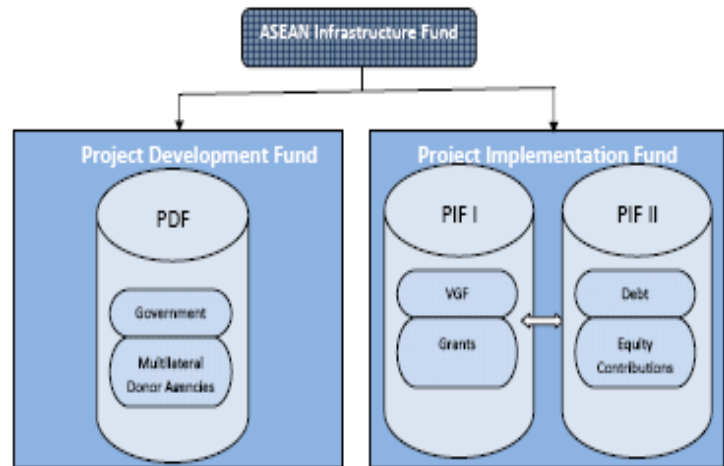
Table 12: Sources of Funding

Description	VGF/Public Investment	Soft Loan	Equity	Total
Investment (USD Million)	2,965-3,234	1,078-1,348	809-1,078	5,390
Percentage Contribution	55-60	20-25	15-20	100

As the development of projects in MIEC is proposed both on public finance and private sector funding, creation of an infrastructure fund is suggested which would provide funds for planning, development and implementation of various identified projects.

14.1 ASEAN Infrastructure Fund (AIF)

To cater to MIEC project requirement of USD 88 Billion, it would be required to implement projects under various phases, through Public Private Partnership (PPP) and through public sources. AIF can be raised through a combination of debt and equity involving various stakeholders as principal contributors explained above. AIF shall be utilized to develop projects targeted towards both PPP and exclusively Public funded projects based upon the associated risks- returns and would comprise of following two segments.



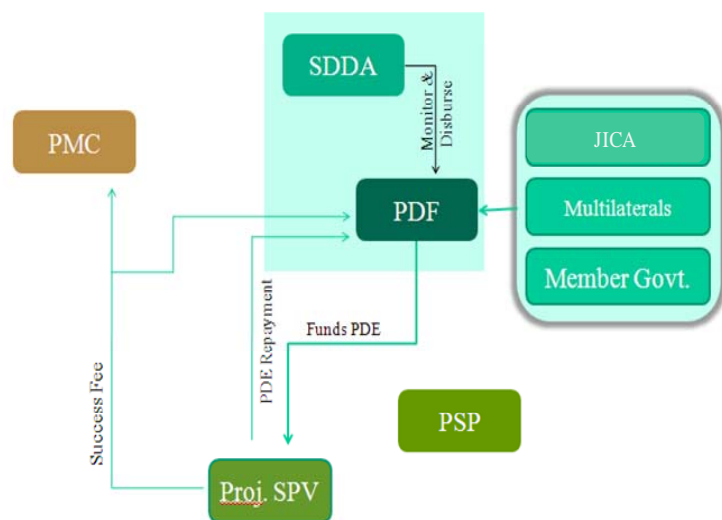
The creation of an infrastructure fund for ASEAN countries is proposed to provide necessary funds for project preparatory and implementation activities for ASEAN countries including countries in MIEC. The objective to develop the infrastructure fund at ASEAN level is to cater to development of potential infrastructure linkages between MIEC and other non-MIEC ASEAN countries.

The project implementation mechanism shall have two major components:

- I. **Project Development Fund (PDF):** To be utilized for projects to be developed on PPP
- II. **Project Implementation Fund (PIF):** To be utilized for financing implementation of projects

I. Project Development Fund (PDF)

The PDF is proposed to be created as a revolving fund for funding the project development activities including the costs of engaging planning/engineering consultants and transaction advisors. This fund is also suggested to finance the additional activities such as *land acquisition, removing encumbrances, getting environment clearances, initial equity participation in SPVs⁶¹, capacity building, etc.* The fund shall receive budgetary provisions/ grants from governments of each of the partnering country and be further supplemented by ODA, bonds and contribution from multi-lateral agencies like ADB, JICA, etc. (see figure above) in the form of both grant and soft loans based upon agreed interest rate for specific period.



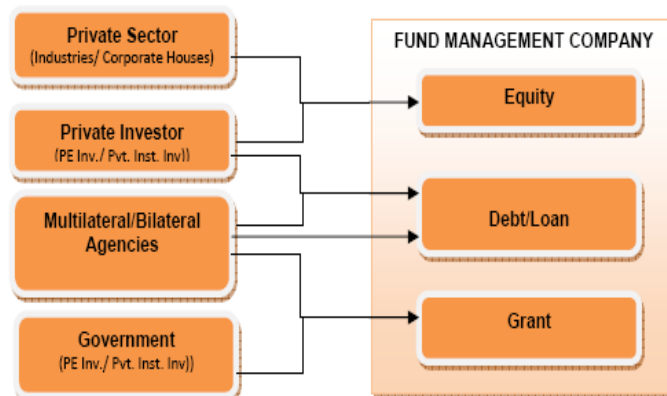
It is estimated that total funding requirement in PDF would be about USD 1.5-2.0 Billion. However it is proposed that PDF would have an initial corpus of USD 100 Million to finance the project development

⁶¹ Note: Special Purpose Vehicles could be (i) entirely private sector entities, (ii) entities with joint-venture between public and private, or (iii) purely public sector entities, depending upon the type of projects being implemented.

activities of the prioritized projects. The PDF would be housed in and managed by a Single Dedicated Development Agency (SDDA)⁶², discussed in detail in a later section) and would be disbursed with the assistance of PMC(s)⁶³. The PMC(s) shall also assist SDDA in technical and financial structuring of the projects. On successful technical closure of the projects, PDF so utilized towards project development activities, shall subsequently be recovered from the Private Sector Participant (PSP or developer). In addition to PDF recovery, success fee would also be payable by PSP, which shall be apportioned between PMC(s) and PDF based upon predefined agreed terms and conditions.

II. Project Implementation Fund (PIF)

A PIF is proposed to be established as a legal entity with its own charter for investment in infrastructure projects in MIEC region. This fund is targeted to finance the implementation of the projects through capital grants and viability gap funding from government and multilateral agencies, debt/loans from private sector institutions (like investment banks, international development agencies, multilateral agencies, etc.), and equity from private equity investors.



It is envisaged that a dedicated **Fund Management Company (FMC)** be created to manage the PIF. This company shall work under the directions of the Project Implementation Fund Committee (PIFC), an apex body with representation from SDDA, fund contributors such as respective government representatives, multilateral and bilateral agencies and private sector investors. The PMC(s) would assist SDDA in identifying the projects and present to PIFC, which shall appraise the projects with assistance from FMC to decide upon the funding structure of the given projects.

14.2 Role of Fund Management Company

The fund management company shall work as extended arm of PIFC with primary functions as under:

- Assist the PIF in establishment of Viability Gap Funding (VGF)⁶⁴ with contributions from respective governments and agencies
- Facilitate the ceation of debt fund by carrying out the fund syndication through debt from developmnet agencies and private sector financial institutions
- FMC shall be responsible for fund raisisng and asset management for establishing a PE Fund with a mandate to invest in infrastructure projects in MIEC
- Assisting PIFC in appraising investment in projects developed by SDDA.

⁶² Note: SDDA would essentially be a multi-faceted organization responsible for planning, coordination, and implementation of suggested action plans/projects (including associated managerial support and funding) and other activities related to development of corridor. It would take the 'ownership' of program and work independently from development agenda of governments in corridor.

⁶³ Note: PMC shall be a consultant who as program manager shall work under the aegis of SDDA to provide necessary advisory assistance with respect to the project preparation, development, financing and implementation.

⁶⁴ Note: VGF is a mechanism under which a lumpsum payment by Government is made to support PPP projects which eventually enhances the commercial viability of the projects. An infrastructure project may not be commercially viable for private sector to invest but have high economic benefit. In order to promote development of such projects through private sector particiaption, a financial support is generally given in form of grants (as percentage of total project cost). This reduces the capital cost for private sector thus making the project more attractive.

14.3 Credit Enhancement

It is envisaged that some of countries in MIEC corridor viz. Cambodia, Myanmar may have problems related to borrowing capacity. While the essence of corridor creation is to build infrastructure sustainability across region (cross country), it may be difficult for such countries to provide guarantees to raise substantial debt. Thus credit enhancement mechanism will be established to fund the projects which are either cross country projects in corridor or are critical for overall corridor implementation in such countries.

14.4 Institutional and Implementation Framework

Need for Program Management Approach

MIEC program would comprise of a large number of projects, some of which would be amenable to commercial implementation on a Public-Private-Partnership (PPP) basis. However, there would also be a large number of projects within MIEC, which would require to be implemented by respective government/multilateral/bilateral donor agencies. The effective implementation of MIEC requiring investments on infrastructure development/augmentation on a large scale would largely depend upon the coordinated efforts from participating countries, private sector, multilateral donor agencies, etc. It is inevitable that a program⁶⁵ of this magnitude, complexity and diverse objectives will require rigorous program management.

In order to ensure that the traditional pitfalls of program implementation are overcome, it is proposed that a Program Management Approach be adopted, wherein each facet of the identified projects within the program is rigorously developed from an engineering, financial, contractual, environmental and social perspective, along with inter-linkages, on prioritization and selective basis and prior to commencement of implementation. A program of this magnitude would also require significant upfront financial resources to develop and structure activities in an optimum manner. Keeping this vision in mind, an appropriate institutional mechanism that is able to exercise oversight and governance becomes critical. Accordingly, the approach to program implementation will require integrating the various elements of focused project development approach.

Proposed Implementation Framework

It is felt to create a Single Dedicated Development Agency (SDDA) which would essentially take the 'ownership' of program. An organization with ownership and capacity to work independently from development agenda of governments would be vital for MIEC. This single dedicated entity shall act as a '**corridor manager**'. The SDDA as a multi-faceted organization would be responsible for planning, coordination, and implementation of suggested action plans/projects (including associated managerial support and funding) and other activities related to development of corridor. It is envisaged that institutional framework towards program management be generally comprised of following Four Tier system:

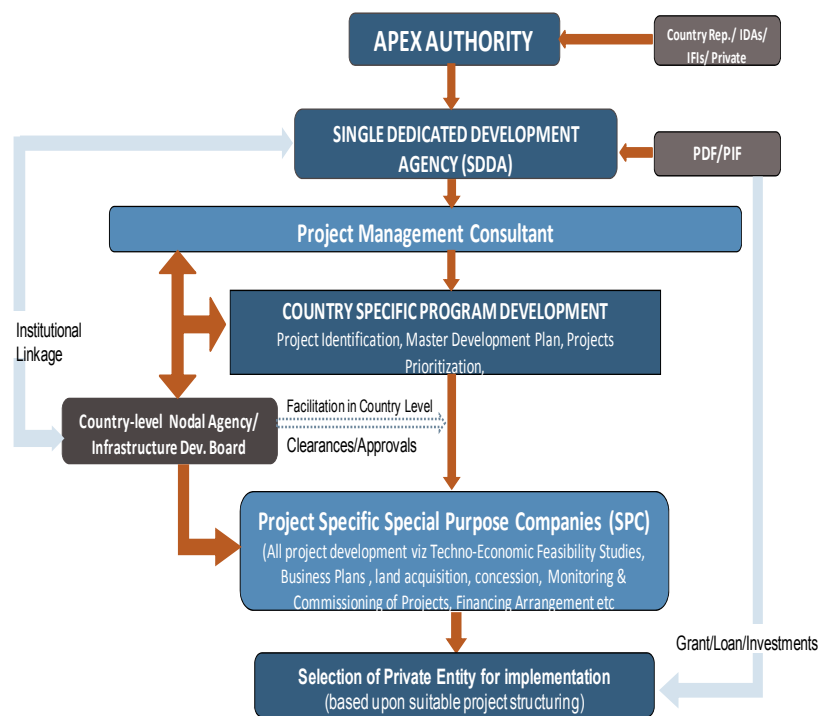
- ✓ **An Apex Steering Authority** shall be headed by country heads of the respective countries along with their representatives (if needed) as members, to provide strategic support to create conducive political environment needed for successful implementation of the program.
- ✓ **A Single Dedicated Development Agency (SDDA)** shall be created with support from the respective national governments and the multilateral/bilateral donor agencies, private sector etc. as a servicing agency and coordinate execution of various tasks for the program management, project development, and provide advisory services for successful project preparation, development, financing and implementation. The main functions of SDDA would be:
 - a. To act as a comprehensive program management, project planning and development entity;

⁶⁵ Note: "**Program**" means planning and development of "Mekong India-Economic Corridor (MIEC)" comprising of various projects viz. Industrial Corridors, development of expressways, other infrastructure projects and other activities as proposed in this concept paper

- b. To facilitate the process of project identification, project prioritization, and master planning of identified projects, growth poles and growth nodes in MIEC;
 - c. To provide necessary financial assistance required for program/project development by mobilizing the resources from various stakeholders;
 - d. To facilitate ease of operation and participation of respective countries in MIEC development program;
 - e. To act as a single window clearance agency taking upon itself the task of co-ordination with and seeking of clearances from various agencies of concerned countries;
 - f. To address environmental concerns and ensure that the developments in MIEC are environment friendly;
 - g. To prioritize high technology and export oriented industries with high employment generation potential;
 - h. To ensure adequate social and community development perspective to improve the quality of life of people in the region.
- ✓ **Infrastructure Development Board/National Level Coordination Entity/Nodal Agencies** shall be a dedicated entity created with representatives from planning, finance, industries, commerce and other relevant ministries/departments of the respective countries. This board shall be responsible for coordination needed between SDDA and various ministerial groups/departments/agencies of the respective national governments with the larger objective of facilitating the implementation of country specific program/projects being envisaged under MIEC program.
- ✓ **A Master Project Management Consultant (PMC)** shall work under the aegis of SDDA to provide necessary advisory assistance with respect to the project preparation, development, financing and implementation. The main role of Master PMC as envisaged is as follows; 1) Preparation of Program Plan, 2) Selection and Supervision of Consultants, 3) Project Development Fund Management, and 4) Coordination with Stakeholders.
- ✓ **Project Specific Entities** such as Special Purpose Vehicles, which could be (i) entirely private sector entities, (ii) entities with joint-venture between public and private, or (iii) purely public sector entities, depending upon the type of projects being implemented. The structuring option to be chosen should be best suited for the project in question, the legal and regulatory framework in the country. The roles and responsibilities of the Project Specific Special Purpose Vehicles will include design, finance, construct, operate, maintain and collect user charges/ toll, sharing revenue with respective government agencies and transferring the project assets to the concerned agency at the end of concession period.

Since multiple countries and development agencies are involved in the development of MIEC, the formation of SDDA may take some time. Therefore in order to kick-start the project development process in MIEC region, ERIA can act as a coordinating agency for the initial period till a dedicated SDDA is created.

Figure 3: Proposed Implementation Framework



14.5 Structured Project Development Approach

The projects in MIEC can be structured differently depending upon the nature of projects in terms of risk-return relationship, capital requirement, and credit worthiness of some countries in corridor. Some projects would be amenable to commercial implementation on a Public-Private-Partnership (PPP) basis from the list of identified projects. Thus various models may be adopted towards the implementation of the projects identified under PPP in MIEC region. These models may vary from short-term simple management contracts (with or without investment requirements) to long-term and very complex BOT form. Adoption of a structured project development approach would lead to focused outputs and bring in credibility that would in-turn facilitate in developing a bankable project that incorporates the concerns of all the stakeholders during structuring of the project and preparation of the procurement documents.

Figure 4: Typical Project Development Approach



The structured project development approach follows a cyclic-iterative process and would typically involve the components viz:

- Project Conceptualization
- Project Documentation
- Technical Close
- Financial Close



14.6 Role of Project Management Consultant(s)

The Project Management Consultancy firm(s) may be appointed to develop the Project(s) as commercially viable and bankable propositions to enable completion of the project development activities and achieve an early financial closure. The PMC(s)' proposed role in assisting the SDDA would mainly be:

- (a) **Preparation of Project Plan** in consultation with SDDA along with due consultations from respective Country Level Nodal Agencies for its successful development. The focus of the plan will be on projects identification, prioritization, selection, structuring and packaging, bundling/unbundling of various projects and assistance in getting approvals.
- (b) **Selection and Supervision of Technical/Planning Consultants/Agencies** for preparation of feasibility/preliminary project reports/engineering studies. The PMC(s) would assist in reviewing/preparing the risk management framework to enable to take view on overall risk profile, formulate strategies to deal with individual risk components and its impact on overall financials.
- (c) **Coordination with Stakeholders** to achieve effective project planning, development and implementation of the identified project components.
- (d) **Financial Structuring** to arrive at appropriate financing frameworks for various project components and to strike a balance between the objectives of SDDA, Country Level Nodal Agency and those of the prospective project investors/lenders in order to enhance the commercial viability of the overall project.
- (e) **Formulation of Project Implementation Structure** taking into consideration the given risks and uncertainties that are usually associated in such projects. The PMC(s) would also work closely with the client in formulating an appropriate strategy for project implementation and operations.
- (f) **Bid Process Management for selected PPP and EPC projects** to select suitable developers/operators/ contractors for various project components and achieve technical and financial close. The PMC(s) may also help in incorporation of project specific Special Purpose Companies (SPCs) for implementation/ management of projects (if necessary).
- (g) **Finalization of Project Execution and O&M Arrangements** for activities/components retained in Joint Venture SPCs and would also assist in developing bankable project execution, operations and maintenance frameworks.
- (h) **Interface with Potential Investors** to identify support, incentives and concessions required for effective and efficient implementation of projects.

15. Suggested MIEC Action Plan

It is envisaged that implementation of various identified projects in MIEC would be done in two phases spread over the time period of 10 years (2009-2019) starting from July 2009. A time frame of four years is envisaged for short-term (2009-2013) and beyond four years is considered as a medium-term period.

ERIA has constituted a Working Group for advising and monitoring the planning of various development initiatives under MIEC. The Working Group comprises of all the primary stakeholders including senior officials from line ministries and premier academic institutions from the countries in corridor. Apart from these, the Working Group also has the members from Industries and Chambers of Commerce of countries in corridor, Japan Overseas Development Corporation (JODC), Japan External Trade Organization (JETRO), ERIA and consultants working on the preparation of MIEC plan.

It may be noted here that the members of Working Group are key policy makers and specialists from respective sectors who have been actively involved in planning and development of MIEC.