International Journal Of Advanced Research In Engineering Technology & Sciences ISSN: 2394-2819

Email: editor@ijarets.org February- 2015 Volume 2, Issue-2 www.ijarets.org

Theoretical Study of Foreign Collaboration in the Development of Energy Projects In India

Dr. Santosh Sharma
Principal
Jagriti Degree College
Meerut

ABSTRACT

India is on the path of high economic growth. The demand for energy - a prime mover of economic development is also rising. Availability of power to all becomes a crucial factor as it has a direct impact and influence on the sectors of education, health and even food security. Inadequacy of energy supply adversely affects these vital and essential requirements of any society. In India, while urban centers can be connected to central power grid, it is the rural areas that are facing the energy challenge. A large number of people in our villages do not have access to energy. Apart from supply shortage in remote locations, difficult terrain and forested area of several villages makes it difficult to connect them to the main power grid. It appears, therefore that these barriers can only be overcome by decentralized renewable energy for electrifying such villages that will also help in their economic and social development. India is facing chronic energy shortages as a result of lag in development of energy resources vis-a-vis its demand. This situation, inter alia, has been the product of the existing financial and technological gaps in the country which could be filled by resorting to foreign resources. The main objective of this paper is, therefore, to discuss the rationale of foreign collaboration in the development of energy projects in India. It examines the meaning and scope of foreign collaboration and its impact on the development of energy project in India. It also gives the cost-benefit relationship of foreign collaboration in the development energy projects in the country. There has been a growing tendency of foreign participation in the economic and industrial development of the developing countries. This participation has been both in the field of capital and technology. The policy behind this practice is that this participation can contribute to enhance the speed of development through the foreign technology and management.

Key words: energy resources, energy project, technology

INTRODUCTION

The history of many developed countries has proved that during the early stages of their development the availability of internal resources has been seldom adequate to meet the demand of goods needed for a modern industrial economy, and advance technical expertise and know-how. It is now widely recognized that foreign collaboration, by performing the gap-filling' function in the growth process of developing countries, plays an important role in accelerating the pace of their economic development. This paper seeks to examine the rationale of foreign collaboration in the development of Energy Projects in India. It also attempts to appraise the Government of India's policy towards foreign capital and collaboration with a view to assessing its adequacy for promoting the objective of self-reliance.

At the outset of our discussion, it is pertinent of define the term 'foreign collaboration' and outline its scope for the purpose of this paper. The philosophy of collaborating is partnership. The central concept of 'foreign collaboration' is, therefore, joint participation between host and foreign country for the establishment of an organic form of enterprise in the host country involving profit seeking relationship. In a proper sense, foreign collaboration refers to that part of inflow of foreign capital and technology for the host country which is backed by commercial considerations of profits and private expectations. Regarding this, that part of inflow of foreign capital and technology to the host country which is provided on concessional terms, that is, on terms more favourable than those prevailing currently in world capital and labour markets, is termed as foreign economic

aid or external economic assistant. Moreover, external economic assistance is not only a question of official transfers beyond the range of market forces. There is also the definitional requirement that the specific forms of transfer should be development-oriented. Thus the basic criterion to distinguish and allocate the total inflow of foreign capital and technology between foreign collaboration and foreign economic aid is that of its terms of supply. While the official transfers of foreign assets on concessional terms are motivated by providing aid for development, the main motive of foreign collaborator is to maximize the profits. Since both forms of inflow of foreign assets to the host country are development-oriented, they can be termed as foreign investment. Further, the increasing involvement of the public sector in the industrialization in developing countries and the simultaneous in flow of foreign capital and technology at official and private levels to the very confusion as to the use of the terms foreign collaboration and foreign economic aid for the apparent reason that like foreign economic aid the government by virtue of its strong bargaining position, also remains in a position to acquire foreign private capital and technology on more concessional terms than a relatively weak private entrepreneur. More recently, the term foreign capital and collaboration has been extended to include all foreign investments. For the purpose of this paper, the term foreign official transfers which impose a burden of repayment on the recipient this paper, the term foreign official transfers which impose a burden of repayment on the recipient. Since India has opted for a mixed economy and has directly assumed the responsibility for affording the economic infrastructure inevitable for accelerating the growth process it further seems desirable for accelerating the growth process it further seems desirable to use the term foreign collaboration in broader perspective for the present paper so as to assess the overall impact of foreign association in the development of energy projects in India.

In the context of planned and spurt in industrial development in the post independence era of the country, the role of foreign financial and technical resources has always been considered significant in India as elsewhere in other developing countries. Besides providing the needed assistance in laying and strengthening the basic economic infrastructure like energy and transport which is of crucial importance to the economic development of a country, the inflow of external resources in the form of technology, finance and managerial know-how also help in speedier industrialization and increasing the level of production. Besides, the import of technology from advanced overseas nations also help in bringing qualitative improvement in the goods manufactured and thus results in enhancing the developing countries competitive capabilities with reference to foreign markets.
India suffers from the lack of generation of internal resources sufficient to sustain the process of development. Consequently tapping of external resources for unretarded pace of economic development become inevitable. The pre-independence era of India presented nearly all the characteristics of an under developed country. Prevalence of acute poverty due to chronic unemployment, heavy population pressure with lower living standards, low per capital income and low rate of capital formation, poor quality of human capita, low level of technology, poor economic organization, etc., all of which were witnessed at the advent of independence. The foremost task before our Government was, therefore, the removal of poverty and acceleration of the pace of economic development of the country. To face the almost stagnant state of economic development coupled with the above mentioned adverse factors, it was found unavoidable to fill the financial and technological gaps by inviting external resources.

Every developed country has had the assistance of foreign finance and technology to supplement its own meager saving in the early stages of its development. England borrowed from Holland in the seventeenth and eighteenth centuries, and in turn came to lend to almost every country of the world in the nineteenth and twentieth century's. The United States of America, now the richest country in the world heavily relied on foreign loans and investments in the nineteenth century, and is now the major lender of the twentieth century. India is, therefore, following the well-trodden historic path in drawing upon the richer sections of the world to build up her productive capacity and augment her economic and technical assistance. Of course one may mention the case of two countries which have developed without any significant foreign capital, viz., Japan and Russia. So far as Russia's case is concerned, she inherited an industrial base built during the period 1881-1913 with import of foreign capital particularly from France. Besides, the rate of forced domestic saving was extra-ordinarily high which cannot be achieved in a democratic society like India. In the case of Japan, which could

do without considerable amounts of foreign capital because of certain favourable factors which do not exist in India? Firstly, Japan had a large export surplus with the continental countries mainly because of their huge demand for Japanese silk; this enabled her to import capital goods and technical know-how required for the development programme. Secondly, most of Japan's industries were on a small scale requiring less capital and more labour which was available in plenty of extra-ordinary cheap rates. Thirdly, the rate of domestic savings was very high because of the absence of noticeable consumption among the weal their classes owing the technology and know-how generally accompany foreign investments, Japan hired foreign technicians and sent her own people abroad for training.

The need for foreign collaboration for a developing country like India arises on account of various crisis prevailing in the country such as capital scarcity, lack of foreign exchange resources, lack of technical and management skills, etc. The rate of domestic savings in India is recognizably insufficient to sustain her development programmes. Since an overwhelming majority of the people is living on the subsistence level, any significant increase in the rate of domestic savings is not possible without lowering the standard of living below the subsistence level, which is unlikely in a democratic society. Import of foreign capital, which permits a rate of investment appreciably higher than the rate of domestic savings, is indispensable if India is to develop at a fairly rapid rate.

During the early years of their development, underdeveloped economies like India normally face the problem of foreign exchange scarcity, partly due to their needs for increased 'development imports' and 'maintenance imports' and partly due to imports of consumer goods. Given the need for imports of capital goods and technical know-how in the initial stages of economic development and low level of domestic savings together with the scarcity of foreign exchange resources to meet the rising import bills, inflow of foreign capital becomes necessary to augment her capacity to import capital goods, equipment and technical know-how desired for her speedy economic transformation. Besides, the need for import of capital goods, development plans also generates demand for the imports of consumer's goods. This is so because development involves diversion of financial resources for the expansion of the economic infrastructure as well as for the establishment of basic industries and capital goods sector, and thus less domestic resources are available for the production of consumer goods. Besides, development programmes also increase the income of people, which in turn leads to rising demand for consumer goods. Since, domestically consumers goods are short in supply for the reason stated above, these have to be imported if the vicious circle of rise in prices is to be contained. Under these conditions a poor country like India has no alternative than to invite foreign capital for her unretarded rapid pace of economic growth.

Rapid development generally has a tendency to cause a deficit in the balance of payment mainly in two direct ways. Firstly, import of huge quantities of capital goods, technical know-how and essential raw material necessary to achieve the plan objectives. Secondly, goods which were previously available for export may now be consumed by the newly created domestic industries. In addition to the above mentioned direct effects, rapid development also affects the balance of payments in two indirect ways, namely, through income-effect and price effect as stated above. Foreign collaboration has a beneficial effect on both these adverse effects emerging from development programmes. Import of foreign capital, therefore, helps not only in avoiding the balance of payments deficits, directly but at the same time, it indirectly operates as an anti-inflationary way by sparing more from the existing foreign exchange resources to be used for bringing in more consumer goods, which is turn would lessen the pressure on prices.

India, being a developing country, suffers not only from a shortage of capital but also lacks in advance technology, managerial ability, skills, etc. Foreign financial collaboration brings with it these complementary factors which are essential for the development of a country like India. Foreign investment creates an industrial atmosphere which induces domestic capital and enterprise to participate in the speedy growth of the country. Besides this, foreign investments also provide opportunities of technical training for local people, and thus promote the diffusion of technical know-how and expertise moreover; the promotion of new projects involves a

good deal of risk. For want of experience and inherent risk involved in new ventures, domestic capital and entrepreneurship may not flow into certain lines of production like minerals and mineral oil. Foreign investments perform the important function of starting new lines of production and bear huge losses inherent in new ventures. If these ventures are successful, the domestic capital may also participate and reap benefits without suffering the initial losses. Further, in the initial years of economic development it is difficult to mobilize domestic savings for financing the projects of strategic economic significance, as the domestic capital market in this stage remains itself under-developed. Foreign capital, therefore, becomes essential as a timely measure to sustain the process of economic development. The wide acceptance of the foregoing importance of foreign resources is manifested in the establishment and growth of international institutions providing development funds and in the policies of governments in developing countries which encourage the inflow of public and private foreign investments.

NEED OF FOREIGN COLLABORATION IN INFRAS-TRUCTURAL GROWTH

An adequate and well-synchronized development of the economic infrastructure like energy and transport is of crucial importance to the economic development. It is an essential prerequisite for the balanced growth of our economy. Infrastructural facilities, in fact, determine the country's capacity to grow. Economic infrastructure or 'public overhead' is an economy's capital in the form of railways, roads, energy projects and other public utilities in the nature of facilitative structure that promotes general economic activities within the country. Since these installations involve large gestation period, high capital-output ratio, huge initial investment, the infrastructural development cannot be left to private enterprise. Hence, normally it is the responsibility of the Government.

The contributions of economic infrastructure in breaking the stagnancy and paving the path for the development and expansion of economy are many and varied. Indian economy represented almost a state of stagnancy in the pre-independence era, mainly due to the lack of adequate infrastructural facilities under which an economy continuously expands. The most serious problem facing the economy was limited and partial' development of and administrative points of view. Besides being a basic condition for the economic development, establishment of an adequate infrastructure helps in generating considerable investment and thereby employment opportunities in the country. Thus, the construction of adequate infrastructure is inevitable for the accelerated pace of economic development.

RATIONALE OF FOREIGN COLLABORATION

The role of foreign collaboration is now intimately linked to development planning and most developing countries like India view their need for foreign collaboration from the standpoint of their development plans. Developed countries have even encouraged the practice of development planning as a pre-requisite for the receipt of public foreign investment. Through a variety of policy measures, India, like other developing countries, is also influencing the magnitude, composition and use of foreign resources.

In India, the need for foreign capital and technology for the rapid economic development was recognized even before the planning era was initiated. The India's economy presented a gloomy picture for making rapid strides towards her economic growth. Even India's capacity to absorb foreign capital was much lower due to a number of factors like sport ages of competitive, administrative, managerial and technical personnel’s required to utilize the foreign capital, inadequate and under-developed state of economic infrastructure, particularly of such vital infrastructural ingredients of energy and fuel, transport and communication, etc. In general, the capacity to utilize the foreign resources productively will be low when there are, inadequate infrastructural facilities, administrative and organizational bottlenecks, power, low geographical and occupational mobility of labor, and narrow localised market. Most of these factors, besides restricting domestic investments also limited India's capacity to absorb foreign resources. The necessity for foreign collaboration in India was identified with reference to her requirements for additional financial and technical resources to achieve the objective set forth in the successive development plans entailing greater investments than could be sustained by the level of domestic savings. This excess of developments over the domestic availability was apparently found desirable to

be covered by foreign resources. It is worth mentioning that since the need for additional resources to finance the proposed development programmes is based on projections of foreign exchange earnings and foreign exchange expenditure during the plan period, the estimates for foreign capital are necessarily inexact either on account of over estimation of exports or under estimation of development and maintenance import requirements during the proposed plan period. Regardless of eras in estimating the extent of external financing for the fulfillment of plan objectives, the fundamental principle remains, the dependence on foreign resources limits the size of the plan, and hence the speedy growth of a developing economy is unlikely resorting to foreign capital and technology.

It will be deceptively simple to consider foreign capital as the residual means of financing the development plan. The full implications of foreign capital cannot be appreciated by a simple arithmetic exercise of calculating the amount of investment needed to achieve a desired growth rate, the estimation of domestic financial resources available for the diversion towards the development plan, and then desiring to cover the balance. Instead, a more comprehensive analysis considering how the inflow of foreign capital and technology relates to a great national effort to encourage the rate of growth is needed. More specifically, it should examine the differential impact of various forms of foreign capital receipts, their costs and benefits and the transfer problems.

BENEFITS FROM FOREIGN COLLABORATION

Going beyond these general comments on the need for foreign collaboration in the planned economic development of India and her absorptive capacity, we may analysis more directly the contribution of foreign capital and technology in the socio-economic transformation and development of the country. This requires us to weigh the benefits of external finance against its costs. There is a net national gain from more capital imports if the value added to output by foreign collaboration is greater than the amount appropriated by the investor social returns exceed private returns. It foreign investment raises productivity and this increase is not wholly appropriated by the investor, the direct benefit so arising would then accrue to local factors of production in the form of higher real income to consumers by way of lower prices, and to the Government through higher tax revenue. In addition, highly substantial indirect gains through the realization of external economics are also likely to emerge from foreign investments. Besides this, inflow of foreign resources also allows a larger labour force to be employed in the country, where chronic unemployment and underemployment exists, particularly in the rural sector. If adequate infrastructure is developed, rapid industrialization is bound to take place as more foreign investments can be attracted. It has ever since independence been contended that shortage of capital is the primary limiting factor for the adequate development of the basic constituents of infrastructure like transport and power as well as for rapid industrialization and thereby for the employment of the existing surplus labour force in India. Thus foreign collaboration, by filling up the existing financial and technological gaps in India's planned economic development, would make possible more employment of surplus labor. It will also lead to a purposeful migration of labour from rural areas to the advanced industrial sector, where wages are higher. Obviously, the inflow of foreign capital and technology would not only serve as an alternative to the migration of labor from India when outlets to the emigration of surplus labour are restricted, but also increase in marginal productivity of the newly employed. In this way, the social benefits from foreign collaboration in the development of infrastructure in general and in the development of energy project in particular, would be greater than the quantitative benefits arising there form, and this excess should be added as a national gain.

Considering the role of energy in the rapid industrialization and is giving impacts to other economic activities, it may be visualized that some of the benefits of foreign investment also accrue to consumers. In the first instance, energy encourages the establishment of modern industries leading to an increase in the level, range and spectrum of production. Hence, foreign collaboration may benefit consumers by providing them more and more new products. Further, the development of infrastructure, particularly the development of energy is also cost-reducing. This would ultimately benefit the consumers through lower product prices. Thus, given the financial technological gaps, foreign collaboration in the development of energy projects contributes indirectly to the increased productivity of the local factors of production and benefit consumers. Even if the entire

quantifiable increase in productivity is withdrawn by the foreign investor in the form of interest, royalty, dividend, etc., the direct benefit will still continue as the Government taxes foreign profits.

The most substantial benefit from foreign collaboration will arise from external economies. From the standpoint of contributing to the development process, foreign collaboration brings to India not only capital but also technical personnel's, technological knowledge, innovations in products and production techniques, etc. and thus help to promote the diffusion of technological advance to the rest of the economy. In addition, foreign collaboration generally results in the training of labor in new skills, and the knowledge gained by three workers may spread to other parts of labor force.
Foreign assistance in the development of energy projects will also prove a strong stimulus to additional domestic investment. Development of transport, power and fuels would, in addition to increasing the absorptive capacity of India for more foreign investment, would also result in increased mobility of domestic resources, diversification in economic activities, diffusion of knowledge, and open avenues for increased employment opportunities for the surplus labour force and domestic resources which hitherto remained neglected. It is, therefore, desirable to seek the assistance of foreign resources for the installation of the infrastructural facilities, which are, indeed, indispensable precondition not only for the general economic progress of the country but also for attracting foreign as well as domestic resources for the rapid economic growth of India, in a big way.

As highlighted in the above paragraphs, low level of domestic savings and technical advance, limited foreign exchange earning capacity coupled with increased import requirement of the country for the development and 'maintenance' goods during a plan period, hardly permit India to bring up adequate infrastructure without resorting to foreign financial and technical resources. Foreign collaboration, while providing the requisite foreign exchange resources for the import of capital equipment and technical services needed for the installation of energy projects, would also assist our country to reduce pressures on the balance of payments. Not only this, foreign collaboration also encourage the growing installation of manufacturing capacity, inevitable to meet the domestic needs and more foreign exchange earnings. However, to attract private foreign investment in our industries, establishment of vital infrastructural facilities is essential. Development of energy, entailing huge initial investments, can thus be explore by manufacturing the inputs needed for such a programme within the country by inviting foreign collaboration in the related industries. Thus, foreign collaboration, besides increasing the country's capacity to export more also assists in import – substitution and thereby helps in the development of energy projects in the country.

POSSIBLE COSTS OF FOREIGN COLLABORATION

The foregoing effects of foreign collaboration are beneficial; they must also be qualified by possible costs to India. Against the direct and indirect gains arising from foreign collaboration in the development of energy projects in India, import of foreign capital and technology may also possibly affect our domestic saving adversely, deteriorate the terms of trade, and create the problems of balance of payments adjustment. In so far, as foreign investment result in higher income in the country, it should also lead to a higher level of domestic savings. This effect may be obstructed, however, by a redistribution of income away from capital, if the foreign investment reduces profits on domestic capital. Although this indirect cost of foreign collaboration should theoretically be recognized, it is unlikely to be of much consequence in practice. It is more probable that foreign capital and technology being complementary with domestic resources will give rise higher income and profits in other sectors. Obviously, foreign capital and technology employed for the development of infrastructure, particularly in energy development, is unlikely to extent any adverse effect on domestic savings, rather this would lead to increased income and profits in other sectors. However, since an increase in the marginal rate of domestic savings is of predominant importance for a self-sustaining progress of India's economic development, it is essential that the full potential from the foreign collaboration be realized through domestic measures that mobilize, as savings, a large part of the income generated by foreign capital. In view of the fact that foreign collaboration helps in the development of energy projects which serves as a catalyst to the rapid economic growth, it is unlikely that foreign capital may reduce profits on domestic capital and the rate of savings. Conversely, it would add to increased domestic savings.

The possible effects of foreign investment on the terms of trade are usually related to the transfer problem in terms of trade normally tend to improve with an inflow of foreign capital, then tend to worsen when there is subsequently an outflow of capital from the recipient country. Besides these transfer effects, foreign investment may also affect the terms of trade through structural changes associated with the pattern of development that results from the capital inflow. If the pattern of development associated with foreign investment involves deterioration in the commodity terms of trade, then the next gain from foreign investment will be diminished. However, foreign collaboration is unlikely to cause any substantial deterioration in the country's terms of trade, because an unfavorable shift in consumption resulting from an export bias, is probably controllable through import restrictions. On the other hand, if it results from an export bias in production, it will be most likely due to private foreign direct investment in the export prices fell, thereby limiting the deterioration in the terms of trade. Moreover, if the deterioration comes through an export bias in production, it is possible that factorial and the income terms of trade might still improve even though the commodity terms worsen. It can, however, be visualized that inflow of foreign capital and technology for the development of infrastructure in general, and the energy projects in particular, is much promising for improving India's adverse balance of trade, for the obvious reason that such public' overheads' give a big push to speedier industrial expansion.

More important than the foregoing, are the possible adverse effects of foreign collaboration upon the balance of payments. Although foreign collaboration will case the development of infrastructural projects in India, it may give rise to the problems of balance of payments adjustment. Initially, India may comfort transfer problems with the accomplishment of the real transfer of the capital, then with the need to confine the current account deficit to the capital account surplus, and subsequently with the servicing of the debt or the repatriation of the foreign capital. If the transfer mechanism does not operate rapidly and smoothly, disequilibrium will persist in the balance of payments of India as well as in that of the collaborating country. A developing country like India is particularly sensitive to a large potential deficit on current account. The problem of affecting the real transfer may, therefore, be not so much that of acquiring an import surplus on long-term capital account as that of preventing a potential deficit on current account from becoming actually realized, in other words, restraining the demand for foreign exchange within limits given by the supply of foreign exchange. Subsequently, the amount of foreign exchange required to service the foreign debts might become larger than the amount of foreign exchange being supplied by new inflows of foreign capital, the transfer mechanism will then have to create a surplus on current account equal to the items on account of the payment of interest, profits and amortization on the foreign capital.
Since the foreign capital is for development purposes, import from the lending or collaborating country frequently follows directly on the imported capital. To the extent that the capital is directly spent in the country of its origin, there is no transfer problem. If, however, the foreign investment is autonomous rather than a tied loan, only a portion of the investment is likely to induce imports directly from the collaborating country. In both of these circumstances, the problem of successfully transferring the foreign capital in the form of an export surplus from the creditor country cannot be ignored.

The development of basic economic infrastructure like power, transport and ports in the recipient country facilitate the initial transfer of capital, they may at the same time create so high a demand for imports that the host country has to avoid a "transfer problem in reverse." For a developing country like India, the more crucial question posed by foreign investment is likely to be how to limit the import-surplus to the total amount of foreign capital available, rather than how to create an import - surplus in order to achieve the transfer in the first instance. This type of negative transfer problem emerges when the complementary demand of the recipient country, says India, are so strong as a consequent to infrastructural development that they give rise to an increased demand for foreign exchange that exceeds the increase in foreign exchange available from the inflow of foreign capital. This is because the use of foreign resources for the development of energy and transport, etc., not only entail its own demand for imports, but is also likely to raise the level of domestic spending and add to inflationary pressures, thereby including additional imports. As we have already noted, the inflow of foreign capital for the development of infrastructure may stimulate domestic investment by producing investment incentives elsewhere in the economy. If this increased investment is financed by credit creation, it may cause

higher demand for imports in excess of the supply of foreign exchange. Thus, when the inflow of foreign capital leads to negative transfer problem, the debtor country has to suffer a loss of international reserves, or else bears the costs or policy measures aimed at adjusting the balance of payments. External measures like input quote, tariffs and exchange restrictions may suppress the demand for imports but at the expense of productivity and efficiency. Internal disinflationary measures like higher taxation and credit tightness aimed at the elimination of the excess demand for imports are necessary, but involve the costs of reduced consumption and investment. Alternatively, the country may have to devaluate its currency and incur the costs of a possible deterioration in its terms of trade, change in income distribution, and necessary shifts of resources.

The costs of balance of payments adjustment are likely to be more pronounced when the recipient country encounters the problem of debt service. Sooner or later, the outward flow of interests, dividends and payment of the principal amount may exceed the rate of new capital inflow. When the return-flow of income in the form of interest, dividends, etc., and the amortization payments exceed the rate of new capital inflow, the country become a "mature debtor" and confronts a transfer problem in servicing the debt. This requires the recipient country to generate an export-surplus equivalent to the net outward transfer of amortization on capital account, and the income payments on current account. This, further calls for a reallocation of resources so as to expand or replace import. To accomplish this, India may have to impose internal and external controls or devaluate currency, and the adverse effects of these measures on balance of payments adjustment, as stated in the above paragraph, must then be considered as indirect costs of foreign collaboration, to be added to the direct costs of foreign payments. Since the development of energy project is the responsibility of the Government requiring sizable foreign investment to supplement the merge domestic savings available for this purpose, direct costs of foreign investment do not cause much concern in themselves. Because, a part of the increased production from the use of foreign capital can be paid abroad in interest or profits; and this is a deduction which would not be necessary if the savings are provided at home. However, it is significant to ensure that the benefit exceed the direct costs of foreign investments. In this regard, it is of prime concern that the indirect costs of foreign capital should be avoided by instituting measures for balance of payments adjustment so that sufficient foreign exchange could be found for the remittance of external service payments - to escape, or at least minimize, the foregoing indirect costs towards foreign capital, a development programme pertinent to the installation of energy projects should give attention to the debt servicing capacity of the country. Since the development of infrastructure has a high component of government investment, the criteria for allocating capital must acknowledge the effects of foreign investment on the balance of payments. In order to provide for adequate servicing of foreign debt, it is necessary to ensure that the imported capital raise productivity sufficiently to yield an increase in real income greater than the interest and amortization charges. If this is done, the economy will have the capacity to raise the necessary funds either through a direct commercial return or an increase in the taxable capacity.

CONCLUSION

A final conclusion on whether the benefits of foreign collaboration in the development of energy projects in India outweigh its costs can not be reached solely in quantitative terms. Although the direct benefits and costs may be capable of quantitative assessment, it is impossible to measure all the indirect benefits and costs. Qualitative considerations must, therefore, enter into any final judgment on the contribution of foreign capital and technology in the development of infrastructure like power, transport and ports in India.

The all policy considerations most be centered on the dictum that' capital is made at home and the basic principle that 'the productivity of investment' within a single nation, is largely a matter of its external environment, it has a connection, which is usually a close connection, with the gains from trade. Since the effective utilization of foreign resources is highly dependent on the recipient country's ability and willingness to adopt complementary domestic policies, there can be no single equivalence between the amount of the foreign investment with the country and its role of development. Although the use of foreign capital in the initial stages of the country's entire development programmes in beneficial, but over the long run, development cannot be sustained with the use of foreign resources. Keeping in view the state of India's economic development at the advent of independence, low level of domestic savings and technical advance, tapping to external resource of

sustain the process of development become inevitable rather a force to reckon with. Since, by and large, development of economic infrastructure is the state responsibility which calls for huge capital investment and is a pre-condition for accelerating the growth process in a capital scarce economy like India, the participation of foreign resources in this respect becomes much desirable on a whole array of reasons. So far as the forms in which foreign financial, technical and managerial resources can participate in this laudable task of structuring the infrastructural facilities in India is concerned, it is understandable that an overwhelming inflow of foreign resources has been on government-to-government basis, although private foreign investments have also contributed in the development of energy projects in India. In the pages that follow, a detailed discussion on the contribution of 'official' and 'private' foreign resources in the development of powder resources in India has been made.

REFERENCES

1. Agarwal Ramgopal (2013). "Towards the Global Impact for Managing Climate Change", Paper presented at the Harvard Project or International Climate Agreements.
2. Aggarwal A. (2012). "False Prediction". Down to Earth. Vol. 7, No. 5, pp. 29-35.
3. Bashmakov, I. (2011), "Energy Subsidies and 'Right Prices'", in Energy Efficiency, Vol. 35.
4. CRISIL (2010), Hindustan Petroleum Corporation Limited: Debt Instruments and Bank Facilities, January.
5. Cropper, M. (2009), "Public Transport and Affordability in Mumbai, India", World Bank Working Papers.
6. MoP (Ministry of Power), (2014). Hydro Power Policy 2014. (New Delhi: Ministry of Power, Government of India).
7. MoP (Ministry of Power), 2010. Policy on Hydro Power Development. (New Delhi: Ministry of Power, Government of India).
8. MoRD (Ministry of Rural Development), (2014). The National Rehabilitation and Resettlement Policy, 2014. (New Delhi: Department of Land resources, Land reforms Division, Government of India).
9. Morgan, T. (2014), Energy Subsidies: Their Magnitude, How they Affect Energy Investment and Greenhouse Gas Emissions, and Prospects for Reform, June.
10. Organisation of Petroleum Exporting Countries (OPEC) (2014), World Oil Outlook.
11. Platts (2012), "India Takes a Fresh Look at Fuel Pricing Reforms – Through Antique Glasses", 1 December.
12. Rajan A. T., (2012). Power Sector Reform in Orissa: an ex-post analysis of the causal factors, Energy Policy, 28: 657-669.
13. Standard & Poor's (2012), India Sovereign Credit Rating: Press Release, February.
14. United Nations Economic Commission for Europe (UNECE) (2014), Reforming Energy Pricing and Subsidies: Part 2 Guidelines for Reforming Energy Subsidies, Geneva.