Title of This Project: Catching-up from behind: Lessons for India

Principal Investigator: Pradosh Nath

Implementing Agency: National Institute of Science Technology and Development Studies (NISTADS) New Delhi

Date of Completion: October 2006

Executive Summary

1. The note prepares a consolidated perspective of the growth strategies of Japan and Korea. Beginning with the question *if catch-up is possible* the note proceeds on to examine the means and ways adopted by Japan and Korea.
2. A comparison of the broad economic structures of the successful catch-up countries and India shows that ability to **export technology intensive manufacturing goods** distinguishes the former from the latter.
3. It is argued that the importance of the manufacturing sector lies in its intrinsic characteristics of **increasing return to scale** and scope of taking the advantage of **imperfect competition through technological innovations.** Scope of imperfect competition is created by careful **choice of activities** that offers the best scope for innovation.
4. Again when compared the sources of growth for high and low growth countries, it has been observed that contribution of capital was more or less the same across the countries and differed in terms of the total factor productivity (TFP). In addition to **physical capital**, economists identify **Human Capital, Physical Infrastructure Capital and Social Capital** as major contributors to economic growth.
5. While **historical evidence** also indicate the superiority of the manufacturing sector as source of economic growth, countries like England also followed a regime of import restriction and export promotion for **protection of the domestic infant industries** till the time they were adequately competitive in the world market. This was coupled with preferential government financing to enterprises that took up ventures in the **'chosen activities'**.
6. Both Japan and Korea precisely followed the same policy. They had chosen the activities like heavy industries (steel, power), automobile industry, and electronic industry. Made a determined effort to build up **technological capability to match the best in the world and also to keep pace there after**.
7. They **restructured the financial institutions** to redirect investment to chosen activities, established **R&D institutions for specific technology** areas, and developed **human resources in the targeted areas** through revamping formal education and also vocational education and training. Made heavy **investment for infrastructure development** and increasing **efficiency of the government administration**.

8. Both **trade (import restriction, FDI, export) and industrial (licensing) policies** have been used to **protect and guide the domestic industries** to become competitive at the global level.
9. Government intervention has been the key to successful catch-up of these countries. **MITI, in case of Japan, and EPB in case of Korea were most powerful government arms** to visualise, plan and direct the economy to catch-up. Except in rare cases, government intervention was always through directing the private enterprises towards desired end.

(i)

10. India **never had catch-up as the driving force**. Hence although all known kinds of government interventions, and policy instruments for protecting domestic industries were in use, **none of them was geared to develop competitiveness at global scale**.
11. **Technology obsolescence** was not a major consideration. Once technology was imported for industries like steel there was no strategy to be and remain at the frontier of technology. **Repeated import of technology**, therefore, could not be avoided.
12. India had passenger car industry much before Korea and even before Japan. All started more or less the same way; importing technology from one of the world leaders. **Indigenisation was the Indian strategy**; the **Japan and Korean counter part were global leadership**. India took two decades to indigenise in 1971, Japan became one of the global players in the same year; Korea a decade latter.
13. The same is true for Indian industrial R&D initiatives that date back to 1940's with the establishment of CSIR. **Industrial R&D was general in nature and never targeted for reaching the frontier in target areas. As a result many successes also faded soon through obsolescence.**
14. For human capital development, India has created **islands of excellence**. In the absence of the challenge of catch-up, **resources thus developed remained mostly under-utilised**.
15. According to a recent World Bank study, the **business friendliness** of the Indian administration is just better than Bhutan and Afghanistan. UNDP **ranking in terms of HDI** places India in 127; Japan and Korea being 9 and 30 respectively.
16. **Lesson** that can be learnt from Korean and Japanese example is that **catch-up is possible**. What it needs is doing many **right things together at a right time**. Choice of right activities, directing resources to the chosen activities, investment in physical infrastructure, and development of human resources. **Policy package** that can orchestrate the entire act together depends on the ground reality and **cannot be uniform** across the nation and over the time and state of social and economic development.
17. Government plays the critical role in this game of turning around the economy. The distinction between the role of state in the socialist countries and the catch-up countries is that in the latter case the **state executes its planned development through private enterprises**, and keeps its own involvement in running enterprises to the minimum.
18. The role of government is essential because nation's interest is not the sum of the interests of the enterprises. In fact an **enterprise's interest could be in conflict with the interest of the nation**.
19. The **functional arms of the government**, therefore, have to be highly efficient. In fact this is considered as **the key to successful catch-up**.