Strategies for Enhancing India’s Comprehensive National Power

Brig (Retd.) Rahul K. Bhonsle
About the Author

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Comprehensive National Power – Concept and Utility

National power is defined as the ability of a nation to attain its strategic objectives by directed action. The use of power would be based on the overall national vision based on the aspirations of the people at large and the capability of the leadership to fulfill the same. Given people-centric envisioning of goals and objectives national power is no longer restricted to the military but also includes a multiplicity of factors such as strength of the economy, human resources, availability of national resources, knowledge and science and technology. Thus the concept of Comprehensive National Power (CNP) which includes all these factors has assumed significance. The model of CNP is not alien in India, in ancient times, the sage and administrator Kautilya in his widely read treatise Arthashastra Book VI states, “The King, the Minister, the Country, the Fort, the Treasury, the Army and the Friend, and the Enemy are the elements of Sovereignty.”

In modern times, Hans Morgenthau, the leading international relations exponent, in 1954 proposed that national power should include geography, food, raw materials, industrial capacity and military preparedness, technology, leadership, quantity and quality of armed forces, population, national character, morale, diplomacy and governance. In China the concept of CNP gained greater acceptance after propagation by Deng Xiaoping, the doyen of modern reforms in the country. Deng said, “In measuring a country's national power, one must look at it comprehensively and from all sides.” The Chinese define CNP as, “comprehensive capability of a country to pursue its strategic objectives by taking the necessary actions internationally,” or it is mobilization and utilization of strategic resources of a country, to realize national objectives.¹

To obtain an accurate perspective of national power an analytical exercise to measure CNP quantitatively and in comparison with other countries is felt necessary. American intelligence analyst, Ray Cline was the first to do such a study evolving a
comprehensive index of power in the United States in 1977. The Cline formula was extensively used by Chinese scholars in their study of comprehensive national power. In India a National Security Council Secretariat supported study has published a National Security Index from time to time since 2002. Past studies and analysis of CNP have considered a number of factors varying from economy and military the most common to human resources, national will and leadership. A review of these studies reveals that while using the CNP as a tool for enhancing national power essential factors which need to be considered are as follows:-

(a) Economy  
(b) Military.  
(c) Internal Security and Social Harmony  
(d) Human Capital  
(e) Governance.  
(f) Knowledge and Information.  
(g) Science and Technology  
(h) Geography and Natural Resources.  
(i) Foreign Policy and Diplomacy.  
(j) National Will and Leadership

A recent exercise on comparative quantitative measurement of 30 countries [hereinafter referred to as CQM exercise] with the highest per capita GDP including India provides a good indicator of the status of countries with reference to their comprehensive national power holistically.² The CQM exercise examines economy, military, human capital, science and technology and natural resources quantitatively and ranks countries in each. This provides additional indicators for enhancing components of national power and where applicable relevant tables have been included in the Paper.

The CNP so derived whether from a quantitative perspective or analytically has to be seen from the point of view of impact on achievement of national goals and objective by utilizing the power of the sum of the whole rather than disparate strengths in varied domains. Nations which are able to use the sum total of their national strength to achieve strategic objectives would be seen to have used their CNP to effect.
Conversely the CNP model can also be used to identify strengths and weaknesses critically in each element of national power by examining sub-components of the same. Such an exercise should lead to identifying critical interventions for enhancement of value of each factor to generate a holistic self enhancement model. This is the focus of this Paper. A brief discussion of various elements of national power and strategies that can be taken for enhancement of each is therefore outlined as per succeeding paragraphs.

**Economy**

The importance of economy as a key factor of national power needs no elaboration, the focus is the size, growth and mitigation of risk factors. A standard measurement of economic strength is Gross Domestic Product (GDP). As GDP is linked with a number of primary indicators of the economy focus on enhancing GDP assume significance. Consistent double digit growth of GDP is seen to contribute substantially to the economy as a whole. The CQM exercise on economy includes factors as Nominal GDP, Gross National Savings as a percentage of GDP, Foreign Exchange (Forex) Reserves, Public Debt as a percentage of GDP and Nominal GDP per Capita. The conclusions of the CQM exercise reveal that China, USA, Australia, Saudi Arabia, and South Korea figure in the top five. India is mid way in the index. The table containing top five countries and India is as follows.

**ECONOMY INDEX**

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP Nominal US $ Million</th>
<th>Index</th>
<th>Gross National Savings (Percentage of GDP) Year</th>
<th>Index</th>
<th>Forex Reserves US $ Billion</th>
<th>Index</th>
<th>Public Debt as percentage of GDP</th>
<th>Index</th>
<th>Per capita Nominal GDP World Bank</th>
<th>Index</th>
<th>Total Economy Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>9240270</td>
<td>54.36</td>
<td>52.37</td>
<td>100</td>
<td>3,213</td>
<td>100</td>
<td>43.5</td>
<td>82.15</td>
<td>6091.01</td>
<td>7.3</td>
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<tr>
<td>United States</td>
<td>16800000</td>
<td>100</td>
<td>11.64</td>
<td>0</td>
<td>148</td>
<td>4.08</td>
<td>67.8</td>
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<td>49965.27</td>
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<tr>
<td>Australia</td>
<td>1560597</td>
<td>7.99</td>
<td>22.85</td>
<td>27.54</td>
<td>46.83</td>
<td>0.91</td>
<td>26.7</td>
<td>90.67</td>
<td>67035.57</td>
<td>100</td>
<td>45.42</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>745273</td>
<td>3.07</td>
<td>37.69</td>
<td>63.96</td>
<td>541.1</td>
<td>16.38</td>
<td>12.6</td>
<td>97.82</td>
<td>20777.67</td>
<td>29.64</td>
<td>42.17</td>
</tr>
<tr>
<td>South Korea</td>
<td>1304554</td>
<td>6.45</td>
<td>31.92</td>
<td>49.81</td>
<td>306.4</td>
<td>9.04</td>
<td>33.6</td>
<td>87.17</td>
<td>22590.16</td>
<td>32.4</td>
<td>36.97</td>
</tr>
<tr>
<td>India (Rank 14)</td>
<td>1876797</td>
<td>9.9</td>
<td>33.74</td>
<td>54.27</td>
<td>297.9</td>
<td>8.77</td>
<td>50.5</td>
<td>78.6</td>
<td>1489.24</td>
<td>0.3</td>
<td>30.37</td>
</tr>
</tbody>
</table>

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The areas in the sphere of economy which need to be addressed for attaining higher GDP growth are as follows:-

(a) **Enhancing National Savings Rate (NSR).** National Savings Rate is percentage of GDP that is saved by households across a country. Household saving is one of the primary sources of capital investment in the country. The Government has to create schemes for encouraging National Savings. This could be achieved by reducing the spread of the interest rate of saving to borrowing in favor of saving apart from a number of incentives with structural benefits to participants in the NSR schemes while contributing to the national savings kitty.

(b) **Expanding Gross Capital Formation (GCF).** GCF formation reflects the total value of a producer’s acquisitions, less disposals of fixed assets, during the accounting period, plus certain additions to the value of non-produced assets realized by the productive activity of institutional units. Statistically it measures the value of additions to fixed assets purchased by business, government and households less disposals of fixed assets sold off or scrapped. Capital formation includes drive towards savings, setting up financial institutions, fiscal measures, public borrowing, and development of capital markets, privatization of financial institutions and development of secondary financial markets. Apart from these measures India could encourage GCF by opening up economy and infrastructure for private participation as also foreign direct investment.

(c) **A Diversified Trade Basket.** India needs to improve its manufacturing capacity to move towards finished product higher up in the value chain. This aspect is highlighted by Prime Minister Mr Narendra Modi through the Make in India campaign. India needs to exploit and expand trade, primarily exports, by seeking new partners and increase export volumes. India needs to enlarge the list of export commodities, from restricted basket comprising Tea, Fabric, Spices, Iron ore and concentrates and Gems, to also include finished industrial goods by moving up the value chain. This will provide considerable boost to the economy.

(d) **Balancing Sectoral Growth with Focus on Manufacturing.** Diversifying large pool of workforce presently concentrated mainly in the agriculture sector into Industry and Services is necessary. Also the focus of industry and agriculture sector should include raw production as well as value addition in equal measure. There is
inescapable need for India to revamp its rural economy and provide strong incentives for locating new industrial and infrastructure projects into rural areas for inclusive growth.

(d) **FDI Growth.** India could also focus on FDI in export oriented labour intensive industries and encourage creating parallel infrastructure, through FDI to facilitate exports. The FDI in defence industry could also be considered for enhancement as despite recent increase to 49 percent flow of FDI has remained stagnant.

(f) **Public Debt – Expanding Government Revenue.** India needs to bring down its public debt to manageable levels in the coming decade. One of the methods could be to carry out revenue and tax reforms and disinvestment of public sector to generate more revenues for the Government. There is need for India to revisit the issue of subsidies, and eliminate (as in case of fuel) and/or ensure optimal utilization (in case of food and fertilizers), to reduce public liability. Most countries use public debt for GCF and infrastructure development rather than to meet revenue expenditure. A gradual reduction in public debt from the current levels of 75 percent to 30 – 40 percent of GDP needs to be worked at.

(g) **Private Industry and Labour Reforms.** Privatization and labour reforms have to go hand in hand. Opening up more areas of industry for private participation and permitting up to 100% FDI in non-core industries, labor reforms for export oriented industries and spread of infrastructure base towards rural areas with a view to incentivize the private industry to transit to these areas are some other strategies to be looked at.

**Military**

Military remains one of the primary factors in determining a countries overall security and ability to defend territorial integrity, national sovereignty as well as safety and security of its people. In the Indian context with disputes on the boundary with two nuclear powers, growing competition for resources, and control of Sea Lines of Communications military will require substantial accretions to develop adequate combat potential in varied dimensions, nuclear conventional and sub conventional as well as cyber and space. In the CQM exercise which measured defence expenditure,
the amount spent per soldier, and the nuclear factor revealed that top five countries are USA, China, UK, Australia and Russia while India is sixth. The Table is as given below.

**MILITARY INDEX**

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Armed Forces*</th>
<th>Armed Forces Index</th>
<th>Defence Expenditure Millions of $ US**</th>
<th>Defence Expenditure Index</th>
<th>Defence Expenditure per soldier $ US**</th>
<th>Per Soldier Expenditure Index</th>
<th>Total Military Index**</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1458219</td>
<td>63.2</td>
<td>668841</td>
<td>100</td>
<td>458669.8</td>
<td>100</td>
<td>100**</td>
</tr>
<tr>
<td>China</td>
<td>2285000</td>
<td>100</td>
<td>157603</td>
<td>23.32</td>
<td>68972.87</td>
<td>13.35</td>
<td>56.95**</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>197780</td>
<td>7.09</td>
<td>59795</td>
<td>8.65</td>
<td>302330.9</td>
<td>65.24</td>
<td>33.74**</td>
</tr>
<tr>
<td>Australia</td>
<td>59023</td>
<td>0.92</td>
<td>25555</td>
<td>3.52</td>
<td>432966.8</td>
<td>94.29</td>
<td>32.91</td>
</tr>
<tr>
<td>Russia</td>
<td>1027000</td>
<td>44</td>
<td>90646</td>
<td>13.28</td>
<td>88262.9</td>
<td>17.64</td>
<td>31.22**</td>
</tr>
<tr>
<td>India</td>
<td>1325000</td>
<td>57.27</td>
<td>48255</td>
<td>6.92</td>
<td>36418.87</td>
<td>6.12</td>
<td>29.29**</td>
</tr>
</tbody>
</table>

** Indicates accretion of 25% to basic military index for nuclear weapon states.

Military strength can be enhanced by the following:-

(a) **Greater Investment in Defence Capital Budget.** Allocations to defence have remained stagnant at below 2 percent of the GDP which is not considered adequate to make up hollowness and acquire state of the art modern weapons systems. Alternately for enhancing capital budget corpus without substantial accretion to the defence budget restructuring the ratio of revenue and capital budget in the coming years from the current ratio of approximately 60:40 to 50:50 and then improving it further to 40:60 which is considered an ideal one. Similarly savings in manpower costs are called for by cutting back on numbers with accretion of force multipliers is recommended.

(b) **Human Resources Pool in the Security Sector.** Optimising manpower holistically in the security sector by adopting an integrated manpower policy wherein the armed forces are able to shed those superannuating from the services at a relatively young age profile between 35 to 40 to the police and para military is the way ahead for generating internal resources without loss of efficiency apart from

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reducing cost of training police personnel for tasks such as counter terrorism and will also optimize the ex servicemen pool and talent.

(c) **Creating Usable Capability in Capital Acquisitions.** The focus on capital acquisitions has to be on creating usable capabilities for a multi spectrum conflict environment ranging from the sub conventional to the conventional. Priority for acquisitions would have to be thus given to Force multipliers, joint usable assets such as fighter aircraft, helicopters gun ships and UAVs, transport and utility helicopters so that existing resources are converted into usable assets and capabilities.

(d). **Fast Tracking Make in India in Defence Sector.** There is an urgent need to build the country’s strategic industrial base to begin local manufacturing of aircraft, tanks, artillery guns, UAVs, NVG and a variety of defence equipment in India. Joint ventures on BrahMos model is one route there are other dynamic processes which have to be adopted for timely acquisitions through a concerted push at all levels as a national priority.

(e) **Triad and BMD.** Nuclear weapons will continue to remain a sine qua non for security in South Asia despite much talk of global disarmament. India will have to build a more robust, multi dimensional deterrent in addition BMD has become equally important and progression in this direction needs to be undertaken at a rapid pace for operationalisation of a system by 2022 to cover all strategically vulnerable areas of the country with exothermic and endothermic BMD cover.

(e) **Annual Measurement of Combat Readiness State.** There is a perception in the strategic community at present in India of low combat readiness levels of the forces due to deficit in state of the art equipment as well as ammunition, hollowness, officer deficiencies and low rate of modernization. A realistic assessment has to be made each year to identify capacity deficits which impact combat readiness and gaps in war waging capability or deterrence. Such a report should be presented to the Cabinet Committee on Security (CCS) by the Chairman Chiefs of Staff Committee each year and relevant unclassified portions discussed with the Parliamentary Standing Committee on Defence and released to the public.
Internal Security

India continues to face a number of challenges in the internal security domain in varied forms, which include insurgency in the North East and Naxal infested States of Central India, terrorism in Jammu and Kashmir and the challenge posed by religious extremist terror in the hinterland loosely categorized as Jihadi terror. In addition political violence in the country is also a major challenge which is triggered by socio-economic and communal factors. No quantified assessment of the factor of Internal Security is available. The strategies for improving Internal Security are summarized as follows:-

(a) Police Capacity Building Numbers and Effectiveness. The challenge in police capacity building is two fold, numbers and effectiveness. There is a need for addressing both aspects. The All India Police Population ratio as per the National Crime Records Bureau for 2013 is 141 per 100,000 population against an ideal UN recommended 220. The overall deficiency is 24.5 percent. Making up the same on priority is necessary. On the other hand efficiency and effectiveness needs to be enhanced by improving the quality of intake, basic and refresher training, provision of modern equipment and upgrading the available training infrastructure. The SMART policing model unveiled by Prime Minister Narendra Modi is the way ahead, there are likely to be a challenge in transition to the same which have to be overcome by effective supervision and allocation of budgetary resources

(b) Skill Development to Enhance Employment Opportunities. To optimally utilise the youth bulge in the country apart from education skill development is necessary. This will ensure that the educated young men join the mainstream and are not veered away by radical ideology. For this extensive skill building, focus on vocational training, expansion of the services sector where jobs at a lower skill level are easier to create, rural infrastructure, ITES processing are some of the areas which need attention. The largest demand for jobs is in the rural areas, working out a model for creation there would be necessary alternatively effective urban migration policies should be evolved. A massive skill development programme in multiple dimensions as launched by the National Skill Development Agency needs to be fast tracked and sustained over the long term. The overall objective of the skill development
programme has to be to enhance the rate of employability to 6 percent from the current rate of 2.8 percent.

(c). **Inequality Reduction.** Economic growth should not be restricted to niche sectors such as Information Technology but has to be spread to those employing large number of persons such as agriculture to reduce the gap between the rich and the poor, the rural and the urban. This will prevent disaffection by reducing the marginalized and preventing a sense of victimization. At the same time inequality has to be seen holistically thus social and political empowerment is as important as economic for reduction of sense of deprivation. This is an important factor in the information age where youth who feel disempowered politically may be looking at alternate avenues including extremist ideologies and thus needs consideration.

### Human Capital

Enhancing the value of human capital (HC) will impact all other sectors of national growth to include the economy, military and governance. In the CQM exercise which measured Human Capital six sub factors were considered to include size of population, ratio of economically active population to total population, expenditure on health as a percentage of GDP, physicians per 10,000 of population, literacy and public spend on education as a percentage of GDP. USA, Belgium, Netherlands, Spain and Germany figure in the top five countries India is amongst the bottom five. The Table is as follows.

**HUMAN CAPITAL INDEX**

<table>
<thead>
<tr>
<th>Country</th>
<th>Population</th>
<th>Index</th>
<th>Physicians per 10,000</th>
<th>Index</th>
<th>Expenditure on Health Care as Percent of GDP</th>
<th>Index</th>
<th>Economically Active Population as ratio of total population</th>
<th>Index</th>
<th>Public Spending on Education as Percent of GDP</th>
<th>Index</th>
<th>Literacy</th>
<th>Index</th>
<th>Overall Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>313847465</td>
<td>22.76</td>
<td>24</td>
<td>54.76</td>
<td>100</td>
<td>0.52</td>
<td>68.75</td>
<td>5.43</td>
<td>70.79</td>
<td>99</td>
<td>98.66</td>
<td>69.29</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>10438353</td>
<td>0</td>
<td>30</td>
<td>69.05</td>
<td>11.8</td>
<td>68.12</td>
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<td>48.95</td>
<td>6.57</td>
<td>100</td>
<td>99</td>
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<tr>
<td>Netherlands</td>
<td>16730632</td>
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<td>99</td>
<td>98.66</td>
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<tr>
<td>Spain</td>
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<td>40</td>
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<td>9.7</td>
<td>52.9</td>
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<td>Germany</td>
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<td>81.06</td>
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<tr>
<td>India</td>
<td>120507361</td>
<td>2</td>
<td>89.63</td>
<td>6</td>
<td>11.9</td>
<td>2.4</td>
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<td>37.88</td>
<td>3.21</td>
<td>13.42</td>
<td>61</td>
<td>13.65</td>
</tr>
</tbody>
</table>

[Rank 26]
Strategies for enhancing human capital should focus on improving two primary areas of significance - education and literacy as well as health. These are recommended as follows

(a) **Literacy and Education** There is a need for enhancing the rate of literacy to 99 percent by end of the decade from the present 74.04 percent as per the 2011 census. This will imply a growth by 25 percent in 5 years or 5 to 6 percent per year. At the same time there is a need for increasing the High School Life Expectancy from the current rate of .32 per year to further increase to .41 - .5 per year. Essentially an increase in allocations to education as percentage of GDP as a broad guideline is recommended from the 2013 allocation of 3.9 percent to over 6 percent for progressive development of human resources in a holistic manner. The use of ICT based education tools can overcome the bane of teacher deficiency particularly in rural areas. Thus digital education interventions would provide the way ahead.

(b) **Health Sector Allocations.** Allocations in the health sector need to be categorized in terms of savings rather than expenditure given the benefit that is accrued from healthy citizens who can contribute to the economy consistently. India’s health expenditure as percentage of GDP public and private is 4 percent. Of this the share of public expenditure is 32 percent and private correspondingly 68 percent. There is a need for enhancing the public expenditure on health as this is the main area which can contribute to enhanced human resource development at the grass roots and overall contribution to the betterment of life and thus the economy. Enlarging capacities in medical colleges, para medical institutes and exploiting avenues in alternate medicine such as ayurveda, homeopathy and so on is also essential

**Science and Technology**

For a nation with an aspiration to be on the global high table there is a need for enhancing science and technology (S & T) capabilities which in turn will have a multiplier effect on the economy and military amongst others. India can achieve domain specific competencies in S & T such as in Information Technology, pharmaceuticals and bio technology within a short period of time while gradually increasing potential in other spheres. The CQM exercise on science and technology to include sub factors as expenditure on science and technology as a percentage of GDP, number of personnel involved in research and development, and the number of patents
produced in a given year reveals that top five countries in this index are USA, Japan, China, Germany and South Korea while India is in the middle ranking sixteenth. The Table is as given below.

S & T INDEX

<table>
<thead>
<tr>
<th>Country</th>
<th>R &amp; D Percentage of GDP.</th>
<th>Index</th>
<th>No of R &amp; D Personnel.</th>
<th>Index</th>
<th>No of Patents</th>
<th>Index</th>
<th>Total S &amp; T Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>2.9</td>
<td>76.98</td>
<td>1412639</td>
<td>44.32</td>
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<tr>
<td>Japan</td>
<td>3.36</td>
<td>89.59</td>
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<td>36.16</td>
<td>40411</td>
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<td>China</td>
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<td>59.57</td>
</tr>
<tr>
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<td>45.31</td>
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</tr>
<tr>
<td>South Korea</td>
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<td>100</td>
<td>500124</td>
<td>15.64</td>
<td>10935</td>
<td>20.28</td>
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</tr>
<tr>
<td>India [Rank 16]</td>
<td>0.76</td>
<td>18.45</td>
<td>391149</td>
<td>12.21</td>
<td>1329</td>
<td>2.46</td>
<td>11.04</td>
</tr>
</tbody>
</table>

Some of the strategies for enhancing science and technology potential of the country are as follows:-

(a) **GERD.** R & D is a resource intensive domain which requires considerable financial investment. This is measured in terms of Gross Domestic Expenditure on Research and Development or GERD. India will have to increase GERD from an average of $ 1.696 million PPP per year to at least 4 times or $ 7 million to achieve viable progress in the field of S & T.

(b) **Institutes & Research Pool.** Expanding the capacity and quality of S & T institutes is an accepted intervention. This in turn will lead to an increase in the number of researchers and add to the overall S & T potential of the country.

(c) **Patents.** Patents are an important benchmark of S & T work that is being carried out in the country. A twofold strategy is necessary the first being increasing the number of patent registration and secondly rate of actualization of patents into manufactured goods and products.

(d) **High Technology Exports Base.** High technology exports are another area that would enhance S & T potential of the country and will also contribute substantially to value added exports as well as trade and economy. Joint ventures and partnerships with advanced technology nations is necessary for this purpose.
Knowledge and Information

Increasingly advanced nations in the global society are basing their capabilities on Knowledge and information (KI) marking a shift from the industrial to the information age. This adds to overall development by transforming goods and services more efficiently, generate better institutional capacity, enhance civil society and invite positive outside intervention. A comparative quantified model is not available for KI. Three main areas need to be considered to ensure expansion of India’s KI base as follows:

(a) **Higher Education Mass and Quality.** Enhancement of the university infrastructure which is the base for higher education is imperative for the country. While focusing on the numbers there is also a necessity to ensure quality and may appear challenging but with greater participation of the private sector, investment of resources and rationalization of university structures growth as well as quality can be achieved. Inviting quality foreign faculty is another intervention that needs consideration.

(b) **Expanding Base of Tertiary Education.** The Gross Enrolment Ratio in tertiary or post secondary education is very low in India and more importantly declines substantially from 100 percent in primary to just 9 percent in the tertiary. So far there has been focus on primary education enrolment, now the emphasis has to increase on tertiary education as this will lead to enhancement of the overall knowledge base in the country by creating well educated individuals.

(c) **Reaping Digital India and Smart City.** The focus of the government on Digital India and Smart City projects can be reaped to advantage by extension of computer penetration and broad band reach through mobile connectivity. The possibility of leaping from the computer to the digital era exists for a large portion of the population which needs to be exploited by sustaining investments in Digital India and Smart City programmes to building K & I. At the same time investments should be made in transforming personnel to the digital age through education and training as laying out the infrastructure for digitization alone will not lead to corresponding dividends in this sphere.
Primary Natural Resources

India is blessed by a favourable geography astride the primary sea lanes of the Indian Ocean, with a sufficiently large land mass and size of EEZ. There is a deficit of primary resources such as arable land, water, oil and gas and minerals. In the CQM exercise three sub factors have been included for natural resources to include total area of the country, per capita arable land and per capita availability of renewable fresh water, Canada, Russia, Australia, Brazil and USA figure amongst the top five. India is in the 10th position. The Table is as given below.

### SIZE AND INTRINSIC RESOURCES INDEX

<table>
<thead>
<tr>
<th>Country</th>
<th>Area in Sq Kms 22</th>
<th>Index</th>
<th>Arable land (1000 ha) per capita 23</th>
<th>Index</th>
<th>Per capita Water Resources 24</th>
<th>Index</th>
<th>Total Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>9984670</td>
<td>58.32</td>
<td>1.314866</td>
<td>60.78</td>
<td>82969</td>
<td>100</td>
<td>73.03</td>
</tr>
<tr>
<td>Russia</td>
<td>17098242</td>
<td>100</td>
<td>0.85428</td>
<td>38.95</td>
<td>30195</td>
<td>36.38</td>
<td>58.44</td>
</tr>
<tr>
<td>Australia</td>
<td>7741220</td>
<td>45.18</td>
<td>2.142165</td>
<td>100</td>
<td>21764</td>
<td>26.21</td>
<td>57.13</td>
</tr>
<tr>
<td>Brazil</td>
<td>8514877</td>
<td>49.71</td>
<td>0.307042</td>
<td>13.01</td>
<td>27551</td>
<td>33.19</td>
<td>31.97</td>
</tr>
<tr>
<td>United States</td>
<td>9826675</td>
<td>57.4</td>
<td>0.518567</td>
<td>23.03</td>
<td>9001</td>
<td>10.83</td>
<td>30.42</td>
</tr>
<tr>
<td>India [Rank 10]</td>
<td>3287263</td>
<td>19.08</td>
<td>0.131048</td>
<td>4.66</td>
<td>1165</td>
<td>1.38</td>
<td>8.37</td>
</tr>
</tbody>
</table>

Strategies for enhancing utilization of natural resources are suggested as follows:-

(a) **Effective Water Management.** Water management is a critical area for a country in which a major portion of the population is based on rain fed agriculture. At the same time a large portion of the water is wasted due to flooding. Enhancing water storage capacity exponentially through rain water harvesting programmes, restricting the drawal of ground water, encouraging dry land farming and drip water irrigation, expanding the irrigation network, river linking are some of the strategies which need consideration. In Gujarat reviving small and big water bodies has been a major success which needs to be replicated across the country.

(b) **Productivity of Arable Land.** Arable land is a premium resource in the country. The pressure on land is likely to increase with requirement for industrialization conflicting with that of agriculture. Enhancing productivity of the available arable land is the only viable option. Agriculture extension, dry land farming, cropping,
research and seed diversity are some of the key measures necessary to be undertaken to overcome the problem. Wasteland management is another area which needs active consideration. Improving agricultural output using better technology and investments in infrastructure and other areas such as dry land farming as a mission and utilising all available land gainfully remain alternatives.

(c) **Energy Enhanced Production & Energy Mix.** A mix of renewable and non-renewable energy is the way ahead. Natural gas is more efficient, thus cheaper long-term LNG contracts, re-gasification plants of bigger size than at Hazira, investment in clean coal technology R&D, energy efficient nuclear and thermal power plants, assured supply using hydro power potential of Bhutan and Nepal, cutting down of transmission and distribution losses, energy grading of machines and daily use items and non-grid solar/wind energy for isolated rural and tribal areas are the multiplicity of options available in this sphere.

(d) **Transportation – Project Implementation.** India has the advantage of a favourable physical geography for building infrastructure. Project implementation remains a problem area which needs to be overcome with synergy and coordination between state and central government, environment agencies, public and private sector partnerships, optimal cost management, accountability for delay and financial evaluation. Speedy completion of freight corridors, completion of gauge conversion, and electrification of tracks and extension of railways to frontier areas is the way ahead for railways.

(e) **Strategic Minerals – Assured External Sources.** The availability of strategic minerals in the country especially Uranium is limited. There is however scope for exploration which needs to be undertaken on priority. India has to sign long term agreements with Australia, France, Russia, Canada, Kazakhstan, Uzbekistan and Namibia amongst others to ensure supply in the long term. Completion of the Thorium fuel cycle should also be given a priority so that domestic availability of this resource can be effectively exploited.

**Governance**

Governance is dictated by political stability, effectiveness of the government in delivery of services as well as law and order, quality of regulations, acceptance of rule
of law by the people, level of corruption in society, internal security, and management of government affairs, decision making, foreign policy and diplomacy and so on.

(a) **Political Consensus** As a vibrant democracy and a Union of States there are challenges to build political consensus in India. The aim should be to focus on larger issues of governance such as development goals and economic objectives through multiple consensus building mechanisms taking all political parties and sections of society on board. Education of masses on policies and consultative federalism in polity is the need of the hour.

(b) **Focus District.** Delivery of governance at the district level which is the most proximate face of Government to the masses should be the focus. Downstreaming the same, Panchayat empowerment and village adoption schemes need to be encouraged so that visible change can be brought about at the grass roots. There is a need for fixed tenures for district magistrates and superintendents of police of two to three years wherein their performance can be assessed and evaluated. This should be supplemented by similar performance appraisal of other district officials such as health, revenue and so on. This appraisal system will have to be quantitative and 360 degree including public perception thereby focusing on accountability to the people rather than the hierarchy alone.

(c) **Regulation of Industry:** Regulatory bodies in activities such as telecommunications, IT, energy, aviation and defence production are necessary to prevent exploitative monopolies be it public or private. This will establish a level playing field for all players which will be controlled by the regulatory bodies by promoting transparent growth, speedy settlement of disputes and removing bottlenecks.

(d) **Improving Judicial Numbers.** Just as in policing India has one of the lowest judges to population ratio at ten judges to a million. A huge backlog of cases reflects poorly on the dispute resolution systems in the country and creates a high degree of frustration with resort to alternate means including use of crime. Thus an urgent focus on enhancing the judicial numbers needs consideration.

(e) **Transparency and Empowerment.** The Right to Information Act has had a salutary effect on controlling corruption in some areas. There is need for all
government organs, the legislature, executive and the judiciary to be brought under its ambit the fastest and without exception. Appointment of Lok Ayuktas and a whistle blowers act with protection for witnesses also needs consideration.

**Foreign Policy and Diplomacy**

Foreign Policy enumerates the overall framework within which a nation conducts relationship with other countries and is built around its bilateral, regional and international aims and ambitions. Implementation of Foreign Policy is achieved through diplomacy. Some of the key recommendations for enhancing efficiency and effectiveness of foreign policy and diplomacy are as given below:-

(a) **Public Articulation of Foreign Policy.** Public articulation of foreign policy through instruments such as White Papers periodically will create greater transparency thereby improving the quality of interaction with states and international institutions alike. The present practice of restricting the same to speeches and statements or annual reports lacks coherence and continuity. Consolidation through the process of white papers may provide greater visibility of the vision and the vectors which are driving India’s interaction with the World at large.

(b) **Smart Power.** There is a general agreement that in meeting challenges of the 21st Century, Smart Power, a combination of Soft and Hard power is necessary. India has been able to leverage soft power to advantage as was evident in acceptance of Prime Minister Narendra Modi’s proposal for declaring 21 June as International Yoga Day. This is an example where visionary leadership was combined with effective diplomacy to achieve consensus on a platform as large as the United Nations. At the same time hard power provides the necessary umbrella of security which can is essential for sustain economic growth and development. A combination of the two termed as smart power is the way ahead.

(c) **Decentralisation and Delegation.** Within the overall ambit of foreign policy laid down by the Central Government through the Ministry of External Affairs, decentralization and delegation for conduct of diplomacy economic, trade or military to respective ministries and State governments is the need of the hour. This will cut down time in decision making and empower Ministries/States to follow a vibrant policy of engagement with counter parts across the globe in various domains.

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(d) **Numbers and Resources.** It is commonly acknowledged that India’s foreign policy establishment is hampered by numbers, budgetary resources and research inputs. There is a need for enhancing the numbers in a gradual manner without creating turbulence. Recent move to rope in consultants should be another form. Encouraging study of international relations in universities and think tanks, improving the quality of education in this stream and investing in policy research is necessary so that this can provide the knowledge pool to the policy makers.

(e) **Expanding the field of Ambassadors.** Able and articulate people from all walks of life should be picked up for diplomatic assignments while within the service Ambassadorship should be earned based on ability and a proven track record.

(f) **Expanding Economic Diplomacy.** Geo-economics is increasingly dictating geopolitics. Strengthening the economic arm of diplomacy has assumed importance. At the apex level a separate minister of state for economic diplomacy may have to be nominated to give an impetus to the same who should be able to coordinate between the Ministry of External Affairs and the Ministry of Commerce and Industry as well as other ministries to give an impetus to trade, use development aid and assistance effectively while contributing to overall engagement of nations at large.

(g) **Expanding Military Diplomacy.** Military diplomacy is a major tool for attaining foreign policy goals. A systematic effort to develop military diplomats is necessary to include foreign language courses during initial cadet training, mid career exposure to global and regional affairs by attending seminars and conferences and enhancing representation on foreign missions. A specialist cadre of military diplomats also needs to be considered as this field requires a high degree of experience and expertise.

**National Will and Leadership**

Hans J. Morgenthau has highlighted the importance of national will and leadership particularly during a crisis. He states, “A nation’s will tends to manifest itself most clearly in times of national crisis, when the existence of the nation is at stake or an issue of fundamental importance must be decided.” Good leadership can convert strength of a nation into power while poor leadership will remain inhibited by deficits. There are three constituents of National Will follows:25:-
a. Level or degree of cultural integration of the people in a feeling of belonging to a nation, which includes assessments of both cultural uniformity (ethnicity, language, religion) and popular identification with a territory (with cultural integration weighted three times as heavily as territorial integration).
b. Effective strength of national leadership, comprising equal parts of governmental policy capability and level of social discipline.
c. Relevance of strategy to national interest.

Some recommendations for developing National Will and Leadership are as follows:-

a. Study of India’s glorious historical legacy and inherent strengths of India as a civilization.
b. Identification and articulation of national goals and objectives.
c. Emphasising cultural cohesion, common national values, justice and fairness in society.
d. Developing collective will to face national challenges peace as well as war.
e. Developing strategic culture and vision.
f. Youth should be groomed to be community, national and global leaders by providing opportunities for interaction at an early age.

Conclusion

The concept of CNP is not new to India. As highlighted the roots lay in the works of Chanakya’s elements of sovereignty and circle of states which determine the strength of a nation and thus are the source of a six fold policy. Chanakya highlighted that a strong state can follow an independent policy of engagement with neighbours while a weak state will remain a vassal. India’s aspirations for leadership in the World can be met by enhancing the CNP potential for which exists. By articulating a national vision and adopting a structured program with identification of critical strategies in each domain of the entire spectrum of national power CNP can be enhanced and goals achieved within a reasonable time frame of a decade or so.

Endnotes:


3. World Bank 2013 World Development Indicators Available at http://data.worldbank.org/indicator/NY.GDP.MKTP.CD. (Accessed August 12, 2014). GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates. For a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions, an alternative conversion factor is used. Data is for 2013

4. Gross savings (% of GDP). Gross savings are calculated as gross national income less total consumption, plus net transfers. World Bank national accounts data, and OECD National Accounts data files. Data is for 2010.

5. Reserves of Foreign Exchange and Gold for 2011. This entry gives the dollar value for the stock of all financial assets that are available to the central monetary authority for use in meeting a country's balance of payments needs as of the end-date of the period specified. This category includes not only foreign currency and gold, but also a country's holdings of Special Drawing Rights in the International Monetary Fund, and its reserve position in the Fund. Available at https://www.cia.gov/library/publications/the-world-factbook/rankorder/2188rank.html. (Accessed February 21, 2013).

6. Public Debt as percentage of GDP for 2011. This entry records the cumulative total of all government borrowings less repayments that are denominated in a country's home currency. Public debt should not be confused with external debt, which reflects the foreign currency liabilities of both the private and public sector and must be financed out of foreign exchange earnings. Source https://www.cia.gov/library/publications/the-world-factbook/rankorder/2186rank.html?countryName=China&countryCode=ch#regionCode=eas&rank=75#ch. (Accessed February 21, 2013).

7. GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Source http://data.worldbank.org/indicator/NY.GDP.PCAP.CD. (Accessed February 22, 2013).

9. Active military personnel represent those ready to fight. Source SIPRI 2010 as indicated in Wikipedia List of countries by number of military personnel which include Active forces only. http://en.wikipedia.org/wiki/List_of_countries_by_number_of_military_and_paramilitary_personnel. Data has also been counter checked with other sources. (Accessed June, 22 2013).


11. Defence Expenditure per soldier is calculated by dividing the total defence expenditure for 2012 by the number of armed forces personnel.

12. Nuclear weapon states, China, France, India, Pakistan, Russia, UK and United States have been given a 25 % accretion in the basic military index due to possession of higher capability.


15. Total expenditure on health as a percentage of GDP. Health expenditures are broadly defined as activities performed either by institutions or individuals through the application of medical, paramedical, and/or nursing knowledge and technology, the primary purpose of which is to promote, restore, or maintain health. Source CIA Country reports available at https://www.cia.gov/library/publications/the-world-factbook/rankorder/2225rank.html?countryName=Afghanistan&countryCode=af&regionCode=sas&rank=67#af. (Accessed December 15, 2012). Variation of 0.20 in UK not corrected as minor.

16. The economically active population is taken as a proportion of total population. The economically active population comprises all persons of either sex who furnish the supply of labour for the production of goods and services during a specified time-reference period as per the International Labour Organisation. (ILO). Data is to be multiplied by 1000 and is for 2011. FAO http://www.fao.org/nr/water/aquastat/data/query/results.html. (Accessed March 10, 2013)
17. Public spending on education, total (% of GDP). Public expenditure on education as % of GDP is the total public expenditure (current and capital) on education expressed as a percentage of the Gross Domestic Product (GDP) in a given year. Public expenditure on education includes government spending on educational institutions (both public and private), education administration, and transfers/subsidies for private entities (students/households and other private entities). Source http://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS for 2009. (Accessed December 15, 2012). Some data is for other years and from other sources where data is not available in main source. For instance China 2008 Data from http://www.oecd.org/china/48677215.pdf. (Accessed December 15, 2012). Figures for Nigeria GDP %age Edn are NA hence that of India used based on same level of literacy but will not be accurate indicator

18. Literacy as percentage of population implies age 15 and over can read and write. Source https://www.cia.gov/library/publications/the-world-factbook/fields/print_2103.html. (Accessed December 15, 2012). India literacy is as per 2001 Census and has been retained for uniformity with other countries parameters even though new census 2011 has been published.

19. GERD or General Expenditure on R & D as a percentage of GDP. Data of 2009 unless otherwise indicated, partial data not included. http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=265 6. (Accessed December 16, 2012). Provisional or Partial Data is not take nearest full data available has been taken

20. Total R&D personnel by sex (Headcounts - HC) Data is of 2009 but in some cases of earlier years. In some cases date may have been derived from full time equivalents as given in the source Head count http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=547 2. (Accessed December 16, 2012)

21. International applications via the PCT, Madrid and Hague systems by origin, Data is for 2011. A patent is a set of exclusive rights granted by law to applicants for inventions that are new, non-obvious, and commercially applicable. It is valid for a limited period of time (generally 20 years), during which patent holders can commercially exploit their inventions on an exclusive basis. In return, applicants are obliged to disclose their inventions to the public in a manner that enables others, skilled in the art, to replicate the invention. The patent system is designed to encourage innovation by providing innovators with time-limited exclusive legal rights, thus enabling the innovators to appropriate the returns on their innovative activities. World Intellectual Property Organisation. WIPO 2011. WIPO Publication No. 943E/2012. wipo_pub_943_2012 Patents.pdf. (Accessed December 15, 2012). Annexure page 39. Data for Brazil is 564 but erroneously reflected as 584 and is not corrected being comparatively marginal error.


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The Vivekananda International Foundation is an independent non-partisan institution that conducts research and analysis on domestic and international issues, and offers a platform for dialogue and conflict resolution. Some of India’s leading practitioners from the fields of security, military, diplomacy, government, academia and media fields have come together to generate ideas and stimulate action on national security issues.

The defining feature of VIF lies in its provision of core institutional support which enables the organization to be flexible in its approach and proactive in changing circumstances, with a long-term focus on India’s strategic, developmental and civilizational interests. The VIF aims to channelize fresh insights and decades of experience harnessed from its faculty into fostering actionable ideas for the nation’s stakeholders.

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