GRZEGORZ BYWALEC*

The Social Effects Of The Economic Transformation In India
(An Attempt At Measurement and Evaluation)

Abstract

One of significant and, at the same time, challenging research problems in Economics is measuring the social effect of economic growth (development). Economic growth should never be treated a goal per se. It is rational provided that it brings effects such as, generally speaking, an improvement in the standard of living. However, this is not always the case. Social sciences, including Economics, have not developed any uniform methods of measuring and evaluating such effects yet.

This paper constitutes an attempt to measure and evaluate the social effects of the reforms of the Indian economy and state launched in 1991. The analysis covers a period of over twenty years. As a result of the aforementioned reforms, at the beginning of the second decade of the 21st century, India ranked third in the world in terms of GDP (based on purchasing power parity), after the USA and China. So what are the social effects of such a dynamic economic growth?

For the purposes of this paper, in order to quantify and evaluate the social effects of the economic growth in India and its dynamics in the analysed time period, the author experimentally adopts a popular socio-demographic index, i.e. the average further life expectancy (e0). This constitutes the so-called natural aggregate (a micro index) applied in social development analyses. It is quite commonly used by Indian economists and statisticians, albeit it is rarely applied in European Economics.

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The empirical analysis of the trends in the said index proves that the rapid economic growth in India after the year 1991 has brought about substantial increases in the life expectancy of the inhabitants of the country and a diminishing of disparities in this regard on a national scale (in different cross-sections: urban-rural, females-males, as well as in the regional perspective). In the mid-2010s India is almost on a par with the countries with a medium development rate in terms of the life expectancy of its inhabitants and in some states (e.g. Kerala), the value of this index is comparable to that in the highly developed countries.

**Keywords:** Indian economy, economic development in India, social development in India, life expectancy in India

1. Introduction

In the years 1991–1992 wide-ranging reforms were carried out in India, which were referred to as New Economic Policy. They were necessitated by the low economic and social effectiveness of the model called ‘Indian socialism’, which was adopted by the authorities at the birth of independence in India. It was characterised by excessive state intervention in the economy, particularly with regard to industry and foreign trade. The Indian economy was highly centralised and fraught with too much bureaucracy. It was based on central five-year economic plans. The private sector, which functioned pursuant to the rules of the free market, systematically shrunk and was highly dependent on the public sector. Furthermore, severe restrictions in international trade in commodities and capital resulted in cutting the Indian economy off from the rest of the world and thus depriving it of access to technological and organisational progress.

The adoption of the aforementioned policy led to a sluggish rate of economic growth and a slow pace of social change. In the years 1947–1991 GDP grew at the rate of 3–4% annually, which was significantly lower than in most capitalist and socialist countries. This resulted in India’s diminishing share in the global and Asian economies. In 1950 the GDP of India accounted for 23% of the GDP of Asia, whereas in 1985 India’s share in the GDP of Asia amounted to merely 12% (Bywalec 2010).

The economic reforms carried out in the years 1991–1992 consisted in wide-ranging liberalisation and deregulation of the Indian economy. Along with the shift in the economic model, the decentralisation of state was launched, i.e. democratic local self-government was introduced.¹

¹ I focused on these issues more thoroughly in the following publications (Bywalec 2009, 2010).
The economic and political reforms brought about a rapid acceleration in economic growth and beneficial social changes, which were reflected in an improvement in the standard of living of the Indian society. In the years 1991–2015, India was overtaken only by China in terms of the economic growth dynamics. At the beginning of the second decade of the 21st century India ranked third in the world in terms of GDP (based on purchasing power parity) after the USA and China.

2. The objective, subject and methodology of research

The objective of this paper is to present the social effects of the Indian economic transformation launched in the years 1991–1992 as well as to undertake an attempt at their evaluation.

High economic growth should not be treated as a goal *per se*. The ultimate aim and assessment criteria of the accelerated growth are the social effects it brings about. Relying on this assumption, this paper attempts to examine and evaluate the aforementioned effects in the entire 25-year period of socio-economic transformations in India. Apart from analysing changes in the nationwide perspective, the paper examines them also in the context of regional cross-sections. The course of economic growth, as well as social changes, differed in particular regions of India.²

A survey of the literature on the subject of social effects of governance indicates that there are a variety of methods applied to analyse such effects, and the choice of a particular method depends on many factors. There exists neither one prescribed set of indices measuring the social effectiveness of governance, nor one research procedure.

For the purposes of the paper, in order to quantify and evaluate the social effects of the economic transformations in India I adopt one of the most important demographic indices, i.e. the average life expectancy. According to many authors, this index may accurately, albeit indirectly, reflect the effects of economic development and social change.³ It is relatively common in the Indian scientific literature when it comes to dealing with, analysing, and evaluating the New Economic Policy after the year 1991 (see e.g. Das 1999 and Drèze, Sen 2013).

This index is used predominantly in all the situations where it would be hard to formulate and apply other measures of social effects, e.g. due to the large country area, enormous geographical diversification, stages in the economic development (e.g. underdeveloped regions versus highly developed ones),

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² These problems are elaborated on in (Bywalec 2013).
³ Statistics on life expectancy have for a long time been regarded as “a barometer of social progress” (Rosset 1959).
wealth imbalances and unequal wealth distribution in the society, different socio-cultural determinants resulting from ethnic, social and religious diversity and from other reasons. India, like no other country in the world, meets these conditions (Paz 1997, p. 66). Applying and aggregating, at such a high level and in such a diverse society, other “traditional” measures of the living conditions of the Indian population (e.g. income, consumer goods possession, consumption, indices pertaining to infrastructure, opinion poll results), especially in the case of comparative analyses, may not bring satisfactory findings or, even worse, lead to false diagnoses. In such situations it is reasonable to apply, in order to substitute or complement other measures, the indices of life expectancy of the residents of the area which constitutes the subject of research.

Life expectancy indices constitute a kind of natural aggregate, the accumulated effect (“the resultant”) of almost all dimensions of human life, such as nutrition, housing, labour, hygiene, access to health services, education, and the quality of the natural environment (Łyszczarz, Wyszkowska 2013). Furthermore, it is easy to obtain the empirical data needed to calculate said indices. These data are provided by the demographic statistics, which are usually very well developed in all the countries as they have been applied since ancient times.4

There is a high correlation between economic development and changes in life expectancy. The research on economic development carried out in different regions, countries, and over different time periods prove that an improvement in macroeconomic indices (e.g. GDP per capita) brings about an increase in longevity (OECD Data Life expectancy at birth, 2016). This empirical proof of the existence of such a relationship was a deciding factor in adopting the average life expectancy index for the purpose of analysing the dynamics and regional disparities in the social effects of New Economic Policy in India implemented after 1991.

The aforementioned research objective will constitute a synthesis of the fulfilment of the following sub-objectives:

• analysing and evaluating the dynamics of the indices of the average life expectancy of the Indian population in the period before the socio-economic reforms were launched (1947–1991);
• analysing and evaluating the dynamics of the indices of the average life expectancy of the Indian population in the period after the socio-economic reforms were implemented (after the year 1991);
• analysing and evaluating regional (as per state) differentiation in terms of the indices of the average life expectancy of the Indian population after 1991.

4 Life expectancy is one of the constituents of an index which is very popular and commonly applied in subject literature, i.e. the Human Development Index (HDI), (Human Development Index (HDI) 2016).
3. Life expectancy of the Indian population in the years 1951–1991 and its determinants

It is estimated that at the beginning of the 20th century the average life expectancy in the Indian subcontinent amounted to 20 years, whereas in the period 1931–1940 it exceeded 30 years. The threshold of 40 years was reached only in the late 1950s (Kulkarni 2014, p. 8).\(^5\)

Table 1 presents the indices of life expectancy of the Indian population in the first four decades of independence, that is from 1951 until 1991, when the extensive economic reforms were initiated. The year 1991 is the most important turning point in the 70-year history of independent India.

Table 1. The average life expectancy (e\(_0\)) of the Indian population in the years 1951–1991

<table>
<thead>
<tr>
<th>Years</th>
<th>Males</th>
<th>Females</th>
<th>Gap between males and females</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>32.5</td>
<td>31.7</td>
<td>+0.8</td>
</tr>
<tr>
<td>1961</td>
<td>41.9</td>
<td>40.6</td>
<td>+1.3</td>
</tr>
<tr>
<td>1971</td>
<td>46.4</td>
<td>44.7</td>
<td>+1.7</td>
</tr>
<tr>
<td>1981</td>
<td>54.1</td>
<td>54.7</td>
<td>–0.6</td>
</tr>
<tr>
<td>1991</td>
<td>59.0</td>
<td>59.7</td>
<td>–0.7</td>
</tr>
</tbody>
</table>

Source: (Acharya et al. 2006, p. 137), partially compiled by the author of the paper on the basis of his own calculations.

It can be seen from Table 1 that in the period 1951–1991 there was significant increase in the longevity of the Indian population. In 1991 the average Indian male lived 26.5 years longer and the average Indian female lived 28 years longer than in 1951. The underlying cause of this phenomenon was the accelerated process of the Indian society “getting younger” as a result of a high birth rate (being one of the highest in the world). In the years 1951–1991 the population of India more than doubled – from 361 to 846 million. In the said period India entered the so-called third stage of demographic transition, where the birth rate was still high and decreased very slowly, and the changes in the birth rate were determined by the rate of decrease in the number of deaths being higher than the rate of decrease in the number of births. In the years 1961–1971, 41.1 infants were born on average yearly per 1,000 people, whereas 19.0 died (i.e. the increase in the birth rate amounted to 22.1%). In 1991 these indices accounted for respectively 29.5 and 9.8 (i.e. the increase in the birth rate amounted to 19.7%) (Gedam 199, p. 159). These changes generally resulted from a slight but systematic economic growth, and in particular from implementing many

\(^5\) All the presented indices, unless otherwise specified, concern life expectancy at birth (e\(_0\)).
programmes devoted to expanding technical and social infrastructure. As regards this field it is worth emphasising especially the programmes aimed at reducing famine (including, *inter alia*, the Green Revolution in the 1960s), making education more accessible (including in particular curtailing illiteracy), developing health services, expanding irrigation systems, electrification of rural areas etc.6

One of the important determinants of the life expectancy of the Indian population is the poverty rate, defined as the percentage of inhabitants who live below the poverty line, i.e. a threshold which is measurable in monetary or natural units (e.g. calories) below which social exclusion occurs (Sen 2008, p. 124). A higher poverty rate means a higher mortality rate. Until the mid-1970s this index increased and in the years 1973–1974 amounted to 49.0% in urban areas and 56.4% in rural areas. In the subsequent period the poverty rate systematically declined. At the beginning of the 1990s, 32% of urban dwellers and 37% of rural dwellers lived below the poverty line. Furthermore, the gap between the level of poverty in urban and rural areas shrunk significantly (Acharya et al. 2006, p. 136). Undoubtedly, the decrease in the level of poverty has had a great impact on the longevity of the Indian population.

4. Regional disparities with regard to the life expectancy of the Indian population

Table 2 presents the indices of average life expectancy of the Indian population after 1991, which is the period when the programme of reforms liberalising the economy was implemented. The said reforms, as has been mentioned earlier, dramatically accelerated economic growth and the social modernisation of the country.

It can be concluded from Table 2 that in the analysed quarter of a century (1988–2013), the life of the statistical Indian $(e^0)$ extended by 8.8 years, which can be regarded as a significant social achievement. The increase in the longevity of women is even higher, as their life expectancy extended by 10.3 years, whereas in the case of men the gain amounted to 7.2 years. This growing gap between the life expectancy of females and males constitutes a natural phenomenon in developing countries. Similar processes occurred earlier in the countries of the world which currently have a high or medium rate of development. In most of these countries women live longer than men (e.g. if we look at data for these years in Poland this

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6 These problems are discussed more thoroughly in, *inter alia*: (Indian Economy Since Independence 2015, pp. 99–136, 950–971) and (Datt, Mahajan 2014, pp. 4–44).
gap amounts to 8.0, in Germany – 4.6, in the USA – 4.7, in Sweden – 3.6 and in Japan – 7.0 (Rocznik Statystyczny RP 2015, p. 780).  

When analysing spatial differentiation with regard to life expectancy in India it is necessary to, first and foremost, point to the gap between urban and rural areas. The said gap in life expectancy shrunk in the analysed period. In the years 1991–1995 urban dwellers outlived rural dwellers on average by 7.0 years, whereas in the years 2002–2006 this gap amounted to 6.7 years (Ghosh 2013, p. 200). This indicates that the distance in terms of the standard of living between urban and rural population is diminishing, and this trend should continue in the coming years.

Table 2 presents the indices of average life expectancy as per states. However, not all the states were included in this study. The listing was narrowed down to just the 17 largest states in terms of population, and was compiled in accordance with the administrative division before the year 2000.

The other states, which are situated in the North East of the country (the so called Assam Triangle, except Goa), are very small and do not play a significant role as regards the economy and social life in India. They were established as separate states predominantly for ethnic reasons.

Table 2 points to considerable regional disparities in terms of the life expectancy of the Indian population. The rate of changes in this index also varies from state to state.

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7 This phenomenon is not adequately explained by demography and medicine. There are many reasons for it and they vary from country to country and region to region. The higher life expectancy in the case of women depends not only on the material conditions but also, to a great extent, on social and cultural factors.

8 In the countries with a high or medium rate of development the gap between life expectancy in rural and urban areas is diminishing. For instance in Poland in 2014 the average further life expectancy of males in urban areas amounted to 74.2 years and in rural areas to 73.2 years. As regards females, the situation was reversed as rural women lived on average 81.7 years and the urban woman 81.5 years (Rocznik Statystyczny RP 2015, p. 223).

9 The number of states in India, which constitute the second – regional – tier of administration, is not constant and has undergone many changes. Currently (2016) India is divided into 29 states. In the year 2000 three states were established – Jharkhand, Chattisgarh and Uttarakhund. In 2014 a new state was created from a part of Andhra Pradesh, which was called Telangana (with a population of approximately 35 million). This second tier of administration in India is characterised by great asymmetries in terms of population and size between the different states. The largest state, Uttar Pradesh, is inhabited by around 210 million people, whereas the smallest – Sikkim – has a population of around 700 thousand. Such an administrative division is determined, to a large extent, by differences in terms of ethnicity, language and religion among the inhabitants of India. This highly heterogeneous character of states makes regional studies difficult and as a result their scope is narrowed down here to analysing the large and medium states.
Table 2. The average life expectancy ($e^0$) of the Indian population – average values for states and periods (in years)

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>In total</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>India – in total</td>
<td>58.7</td>
<td>58.6</td>
<td>59.0</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>60.2</td>
<td>59.1</td>
<td>61.5</td>
</tr>
<tr>
<td>Assam</td>
<td>54.1</td>
<td>53.9</td>
<td>54.4</td>
</tr>
<tr>
<td>Bihar</td>
<td>57.5</td>
<td>58.4</td>
<td>56.4</td>
</tr>
<tr>
<td>Gujarat</td>
<td>59.5</td>
<td>58.0</td>
<td>60.5</td>
</tr>
<tr>
<td>Haryana</td>
<td>62.5</td>
<td>62.1</td>
<td>63.2</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>63.3</td>
<td>63.2</td>
<td>63.0</td>
</tr>
<tr>
<td>Jammu/Kashmir</td>
<td>--</td>
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<td>--</td>
</tr>
<tr>
<td>Karnataka</td>
<td>62.2</td>
<td>60.5</td>
<td>63.6</td>
</tr>
<tr>
<td>Kerala</td>
<td>71.3</td>
<td>68.7</td>
<td>73.7</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>53.4</td>
<td>53.8</td>
<td>53.2</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>63.4</td>
<td>62.0</td>
<td>64.7</td>
</tr>
<tr>
<td>Orissa (Odisha)</td>
<td>55.4</td>
<td>55.8</td>
<td>55.1</td>
</tr>
<tr>
<td>Punjab</td>
<td>66.6</td>
<td>65.4</td>
<td>67.2</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>56.3</td>
<td>56.2</td>
<td>56.7</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>61.5</td>
<td>60.7</td>
<td>62.5</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>55.4</td>
<td>56.1</td>
<td>54.5</td>
</tr>
<tr>
<td>West Bengal</td>
<td>61.4</td>
<td>60.8</td>
<td>62.3</td>
</tr>
</tbody>
</table>

*M – males, F – females


In the years 1988–1992 the gap between the states with the highest (Kerala) and the lowest (Madhya Pradesh) indices of life expectancy (the mean value for both sexes) amounted to 17.9 years. Yet, when we compare the state which was ranked as the second (Punjab) with the state which was ranked as the next to last (Assam), the distance amounted to 12.5 years. These gaps changed in the subsequent years. In the period 1999–2003 they decreased slightly and totalled 16.5 years (Kerala – 73.6, Madhya Pradesh – 57.1). The gap shrunk considerably in the next decade and in the years 2009–2013 amounted to 11.5 years (Kerala – 74.8, Assam – 63.3).

If we analyse the aforementioned gaps between states according to sexes, the situation looks different. It can be concluded from Table 2 that there are much narrower gaps across the regions in terms of life expectancy in the case of men than in the case of women. In the first analysed period, i.e. in the years 1988–1992, the gap between the state characterised by the highest life expectancy for men (Kerala...
The Social Effects Of The Economic…

– 68.7) and the state where this index was the lowest (Madhya Pradesh – 53.8) amounted to 14.9. In contrast, the difference in life expectancy for women in the same period totalled as many as 19.3 years (Kerala – 73.7, Assam – 54.4).

In the course of the next two decades these gaps diminished. In the period from 2009 to 2013 they amounted to 9.9 years for men (Kerala – 71.8, Assam – 61.9) and as regards women they totalled 13.0 years (Kerala – 77.8, Madhya Pradesh – 64.8).

Considerable discrepancies as regards the life expectancy of the inhabitants of the analysed states at the turn of the 1980s and the 1990s point to high spatial differentiation in terms of the living conditions of these inhabitants in the said period. This undoubtedly results from spatial disparity in the level of economic and social development. In the following years these disparities diminished, yet they are still too striking for the country.

When analysing Table 2 it can be concluded that western parts of India (both north- as well as south-western) are characterised by considerably higher indices of life expectancy. The situation is worse in the other areas of India, i.e. in Middle India and East India (with the exception of West Bengal). Such a geographical division as regards life expectancy resembles the division of India in terms of economic development (Bywalec 2013). This proves the thesis put forward in the introductory part of this paper concerning the high correlation between the level of socio-economic development and life expectancy.

The indices set forth in Table 3 provide further arguments to support the above-mentioned thesis. They indicate that in the analysed period of over twenty years the average life expectancy of inhabitants in all the states of India grew (calculated as the mean value for both sexes). The most significant increases (exceeding 9 years) can be noted in the poorest states such as Madhya Pradesh, Bihar, Orissa, Assam and Rajasthan. The increases are much lower (4–7 years) in wealthy states such as Kerala, Punjab, Haryana and Karnataka. Such changes are consistent with general rules of demographic development.10

The analysis of spatial disparities in the longevity of males and females is very interesting. It is worth highlighting the gaps between the life expectancy of either sex and how these gaps varied over the course of time. In underdeveloped and developing areas, men generally live longer than women. As economic and social development proceeds, a rapid increase in the life span of women occurs, which causes the life expectancy indices for women, at a particular stage of development,

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10 Studies of long-term demographic trends indicate that as economic and social development proceeds, the increases in life expectancy diminish. In the countries (regions) with high and medium development rates they are much smaller than in the developing countries, and they gradually even out (Rosset 1979).
to exceed those for men and the gap continues to grow. This phenomenon is evident in the case of India and is illustrated by the indices listed in Table 3 below.

Table 3. Changes in the life expectancy of the population of India in the years 1988–2013 (average increases for states and specified periods – in years)

<table>
<thead>
<tr>
<th>States</th>
<th>Increases in the years 1988–2013 (in total)*</th>
<th>Gap in the life expectancy for females and males (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>India – in total</td>
<td>8.8</td>
<td>0.4</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>7.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Assam</td>
<td>9.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Bihar</td>
<td>10.2</td>
<td>-2.0</td>
</tr>
<tr>
<td>Gujarat</td>
<td>8.7</td>
<td>2.5</td>
</tr>
<tr>
<td>Haryana</td>
<td>5.7</td>
<td>1.1</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>7.7</td>
<td>-0.2</td>
</tr>
<tr>
<td>Jammu/Kashmir</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Karnataka</td>
<td>6.3</td>
<td>3.1</td>
</tr>
<tr>
<td>Kerala</td>
<td>3.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>10.4</td>
<td>-0.6</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>7.9</td>
<td>2.7</td>
</tr>
<tr>
<td>Orissa (Odisha)</td>
<td>9.4</td>
<td>-0.7</td>
</tr>
<tr>
<td>Punjab</td>
<td>4.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>11.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>8.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>8.4</td>
<td>-1.6</td>
</tr>
<tr>
<td>West Bengal</td>
<td>8.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

* These are gaps between life expectancy in the years 2009–2013 and life expectancy in the years 1988–1992

Source: compiled by the author on the basis of Table 2.

From the 1920s to the 1970s males in India generally outlived females (Kulkarni 2014, p. 8; Table 2 on p. 3). The second half of the 1970s was a turning point. Since that time the life expectancy indices for women have exceeded those for men and, as it can be noted in Table 3, the gap is still growing. However, these indices vary from state to state.

The analysis of Table 3 indicates that in the years 1988–2003 only in the three large states (Uttar Pradesh, Madhya Pradesh and Bihar – inhabited by around 30% of Indians) did men on average outlive women. These are states characterised by the most severe economic backwardness in India. The statistics prove the thesis put forward earlier herein concerning higher indices of life expectancy for men in underdeveloped areas. However, as it can be concluded
from Table 3, after the year 2003 these relationships reversed. At the beginning of the second decade of the 21st century the life expectancy indices for women in the said states exceeded those for men.

In the other states, over the whole analysed period 1988–2013 the life expectancy indices for women were higher than for men, and this advantage was on the increase, particularly in the states which, in the specific Indian context, are characterised by a high and medium rate of economic development. The demographic situation in Kerala is particularly worth noting, as it is incomparable to any other state in India. In Kerala, as can be seen in Table 2, the longevity of women is the highest throughout India. In the years 2009–2013 the female inhabitants of Kerala lived on average 77.8 years, which constitutes a 6-year advantage over the life expectancy of men. Kerala is the only state in India where women outnumber men. According to the 2011 census, throughout India as a whole per 1000 Indian males there were 940 females. Similar pattern was also observable earlier, that is, throughout the 20th century. Only in Kerala were there 1084 females per 1000 males (Census of India 2011, 2011, p. 88). The cause for this situation is generally attributed to political reasons. Kerala was the first state in India in which, as an outcome of general elections resulted in power being exercised several times by the local government dominated by the Communist Party of India (first in the years 1957–1959 and followed by several other terms of office) (Ramachandran 1996, p. 211). Communist governments implemented impressive infrastructural programmes (especially in terms of education and protection of health). As a result Kerala had the lowest infant mortality rate as well the lowest illiteracy rate in India throughout the whole analysed period (Bywalec 2015, p. 246, 260), which was one of the underlying reasons for the high life expectancy indices in this state. These indices are comparable to those in the countries with a medium or even high development rate.

5. Conclusions

The theoretical deliberations carried out in the paper, as well as the empirical analysis, prove that adopting the index of the average life expectancy for the purpose of analysing the social effects of economic development was justified. Due to the fact that this index constitutes a “synthesis” of many dimensions of human life (including, inter alia, nutrition, health, education, culture, and the condition of technical infrastructure), it possesses a kind of natural diagnostic potential, which proves very useful in macroeconomic studies carried out in a longer time perspective and in large areas characterised by a high dynamics of change. India meets these conditions.
The analysis indicates a high convergence between the changes in the life expectancy of the Indian population, both in time and space, with the economic growth dynamics and social transformations in the country. At the same time it is worth noting that although the disparities between the level of economic development in various states of India increased (confirmed in the findings of other research carried out by the author of the paper), a similar trend was not as evident as regards the social effects of this development, reflected in the changes in the life expectancy of the inhabitants. Thus, it can be concluded that the Indian economic transformation after the year 1991 not only did not aggravate, but rather alleviated, the spatial disproportions in the living conditions of Indians, although they are still considerable. In order to substantiate this hypothesis further studies and research are required.

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\[11\] When formulating opinions concerning the economic and social development in India after the year 1991 I relied, first and foremost, on the findings of my research presented in the publication entitled Reformy ekonomiczne i polityczne a rozwój gospodarczy Indii (1991–2012) (Bywalec 2015).


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SPOŁECZNE EFEKTY TRANSFORMACJI GOSPODARCZEJ
W INDIACH (PRÓBA POMIARU I OCENY)

Jednym z ważnych i bardzo trudnych problemów badawczych w ekonomii jest pomiar społecznego efektu wzrostu (rozwoju) gospodarczego. Wzrost gospodarczy nie jest nigdy celem samym w sobie. Jest racjonalny wówczas, gdy przynosi efekty w postaci – najogólniej ujmując – poprawy warunków życia ludności, ale nie zawsze tak musi być. Nauki społeczne, w tym ekonomia, nie wypracowały jeszcze jednolitych metod pomiaru i oceny tych efektów.

W niniejszym artykule podjęto próbę pomiaru i oceny społecznych efektów reform gospodarki i państwa indyjskiego rozpoczętych w 1991 roku. Analiza obejmuje ponadwudziestoletni okres. Reformy te sprawiły, że na początku drugiej dekady XXI wieku indyjska gospodarka pod względem wielkości PKB (wg PPP) znalazła się na trzecim miejscu na świecie (po USA i Chinach).

A jak przedstawiają się społeczne efekty tego dynamicznego wzrostu gospodarczego? Za miarę społecznego efektu indyjskiego wzrostu gospodarczego i jego zmian w badanym okresie przyjęto eksperymentalnie popularny wskaźnik demograficzno-społeczny, tj. przeciętne dalsze trwanie życia (e₀). Jest on tzw. naturalnym agregatem (makrowskaźnikiem) stosowanym w analizach rozwoju społecznego. Dość często posługują się nim indyjscy ekonomiści i statystycy, natomiast jest mało popularny w ekonomii europejskiej.

Przeprowadzona w artykule analiza empiryczna kształtowania się wielkości tego wskaźnika dowodzi, że szybki wzrost gospodarczy Indii po 1991 roku niośle ze sobą znaczne wydłużanie się życia mieszkańców i jego wyrównywanie się w skali kraju (i to w różnych przekrojach: miasto–wieś, kobiety–mężczyźni, jak również w ujęciu regionalnym). W połowie drugiej dekady XXI wieku Indie zbliżyły się pod względem długości trwania życia mieszkańców do krajów średnio rozwiniętych, a niektóre stany (np. Kerala) nawet do wysoko rozwiniętych.

Słowa kluczowe: gospodarka Indii, rozwój gospodarczy Indii, rozwój społeczny Indii, przewidywana długość życia w Indiach