ShaktiCoin

THE GREATER GOOD

Swiss Shakti Foundation

by

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As stated in the introduction to the Shakti Coin's first three parts of the whitepaper, Shakti[2] Coin is simply better money. That, in and of itself, is reason enough to support the project. But there are other big-picture benefits to consider as well.

In this Part, we define what that big-picture benefits — "greater good" is. We do that with a mathematical representation of some key concepts to help explore the implications of a large-scale roll-out of the Shakti Coin project. At the outset, we'd like to say that we do not have all the answers. By framing the issues mathematically, however, we do hope to provide the structure for more fruitful discourse and further refinement.

1 Swiss Shakti Foundation

2 The word "Shakti" means the internal energy of a living soul in Sanskrit — the language of ancient India with a 3,500-year history.

Abstract. In this paper, we analyze the consequences of the Shakti program's implementation, as well as the participation of schoolchildren who are not able to study due to family poverty, and their entry into the workforce upon graduation. The Swiss Shakti Foundation plans to cover all schoolchildren worldwide.

Without childhood education, most people are shutout of the global economy. However, that is precisely what expands the gross world product. We consider two models of human society: the statistical one (without expanded reproduction) and the dynamic one (considering the expanded human population throughout the whole process of Shakti project implementation).

We demonstrate that the financial assistance provided by the project for the 2.7 billion schoolchildren of the world will result in the growth of the world's gross product. We have derived a law that correlates ***Gross World Product*** change as the project is implemented, and the currency units that need to be injected to cause that change. We demonstrate that systematically engaging all schoolchildren in basic-education significantly increases the human capital.

Keywords: *human capital, gross world product, population, prosperity level, studying, Shakti project, mathematical model.*

Introduction

Technology has changed both economics and everyday human life during the last century. This has led to tremendous social changes, including human capital growth, but the gap between the rich and the poor widened, becoming one of the hallmarks of that time.

On the one hand, wealthy people have grown and are still growing richer, whereas the number of poor increases every single day. According to political analysts, globalization, as well as economic migration of people from impoverished countries to advanced countries, promotes social stratification.

British charity Oxfam has released a report stating that the welfare of 1% of the wealthiest people in the world will soon exceed half of the wealth of humanity [1]. In the meantime, three billion of today's 7.7 billion people are not part of their economies because of their extreme poverty and lack of skills. There are over 2.7 billion schoolchildren in the world, most of whom attend school hungry, while others don't go at all.

A tremendous amount of people are living below the poverty line, and these people are locked into a vicious cycle: they have to obtain education and qualification so that they are able to work and earn money, but to do so they need to have supplies and utilities (again – money).

It's a matter of common knowledge that society's progress alone doesn't make every person: productive, free, healthy, or happy. Regardless of the ***will*** of a person, one may not be able to make the step to the new reality, no matter how much one wants to. We want everyone to have an advantage of progress, but only some can make that change without help. If we don't take advantage of the opportunity that has arisen now, we will lose it.

The Shakti project takes advantage of the new opportunities created by technological progress. The idea is to provide an incentive for the broad population to pursue education, gradually transforming these unqualified citizens into developed Human Capital (HC)[3]. Human Capital consists of people who possess: general knowledge, some experience and skill set that are used to meet their own needs as an individual and the society at large.

Today's marketplace demand employees with: high academic qualifications, vast general knowledge and technical skill set. Their success directly depends on the abilities and skill set they possess. HC is the productivity factor that serves for individual and societal development. It includes the people themselves, their health, education and qualifications; sometimes their working environment and the quality of life that can be considered as elements of human capital. Human Capital (HC) can be separated into individual, business, national and

[3] HC is one of the main development factors of postindustrial society. Professionals and their knowledge in all spheres of economic innovation are essential factors of innovative economic development and the knowledge-based economy as the next step of its development.

global. In developed countries, it takes up 70 to 80% of the wealth.

The HC of an individual (i.e. *individual HC*) characterizes the ability of this individual to do a specific job in the first place. It can be high or low. From this point of view, even the subject who completed a one-year cooking class already represents an element of the world's HC.

Table **1:** The functions, mathematical notations/symbols used in this document.

Symbol / Notation	Meaning
GDP	Gross Domestic Product (GDP) is a broad measurement of a nation's overall economic activity.
GWP	Gross World Product – a total of all GDPs of all countries.
W_0	Overall GWP volume that existed before the Shakti initiative begun.
H	The Human population.
HC	Human Capital.
DWP	Temporal (progressive) variation.
S	Shakti Coin provided during the project implementation.
P	World Capital Growth.
P_{TS}	Shakti-world product growth P_{TS} during the project implementation period T.
D	Profit of Shakti project implementation.
G	GWP growth ratio resulting from Shakti project implementation.
M	Amount of money (Shakti Coin) spent on Shakti project during a time, T.
N	A number of man-years taken by all the people to study.
R	The number of people that lived on the planet in 1951.
u	Represents children, and young men and women under 21, who either attend an educational institution or don't attend one due to the family or individual dealing with poverty.
$T > t$	The time required for the Shakti project implementation.
L	HC increment during the time T.
$L(t)$	Created Human Capital.
L_u	Represents the number of schoolchildren — the young men and women under the age of 21 in school or not attending one.
L_a	Occupied Human Capital.
L_0	The population at the beginning of the Shakti Project.

L_z	The number of people occupied over a period of time, T.
δL	Increase in World population.
ΔL	Represents all schoolchildren in the Shakti project.
ΔL_s	Total HC growth ΔL, explicitly created owing to the Shakti project — most likely people came out of disadvantaged families.
L_T	Number of newborns over a period of time, T.
ΔL_s	Shakti-growth HC.
s	Shakti Coin provided to an individual during the project.
l	Child born between $0 < t < T$.
b	Coefficient of Population Growth.
z	Population not engaged in the workforce at the time of Shakti project implementation. This is a "dry residue" — $z < u$.
w	One Working Individual.
m	An amount of Shakti units granted to one student for attending school for one day.
D_0	Daily costs of Shakti Coins.
$S_0(t)$	The number of Shakti Coins spent during the period before a certain day, where t is a certain day and time measured in years, counting from the beginning of Shakti project implementation.
The Numerical Numbers Used	
7.7 billion	The population of the world in 2019 — 7.7 billion.
3.0 billion	''dry residue'' - the number of people who are not fully engaged in the economic cycle in 2018.
4.7 billion	Occupided human capital (L_a) in 2018
35%	Of the 7.7 billion people, 35% of them are under the age of 21.
2.7 billion	The numbers of schoolchildren who should be in school.
$84,840 billion	W_0 = US $84,840 billion - GWP in 2019.

The Shakti Project Strategy

The Shakti project's objective is to engage the non-working population into the workforce. Thus, the Shakti project provides every schoolchild with small, but effective financial assistance, enough to sustain life. Such aid is granted until a schoolchild reaches the age of twenty-one. Having even minimal financial assistance helps children gain the necessary skill set needed to be part of the workforce, thus hitting the HC. This is what defines the strategic vision and mission of the Shakti project.

The Shakti project strategic vision. The Shakti project's activity has to cover countries around the world. This vision defines the condition of human society as a result of the abovementioned impact and is expressed as follows:

To give the people of the world hope by supporting the efforts they make to satisfy their educational needs, which in turn will assist their professional and spiritual growth.

Mission. The Shakti project's mission[4] defines its meaning, and it is presented as follows:

To promote the economic growth and well-being of the global community by providing young people with sufficient tangible benefits to get an education and enhance the intellectual potential of every human so they can contribute to the workforce effectively.

The Shakti project's mission is reflected in the project's general objective. Let us call it S_0.

*The general objective of the Shakti project is to free the **inner energy** of the people who are currently excluded from the workforce due to a lack of education and the basic skill set and to use that energy to expand and improve HC.*

The force of the freed energy will be working to obtain knowledge, professional skills, proficiency, and even excellence. It helps to identify challenges defined by the general goal, as well as solving problems created by it.

Thus, the project's general goal identifies the ***problems*** and solutions that need to be implemented. They are presented as sub-goals of the general goal S_0.

[4] The exact meaning of the word "mission" is "the intended purpose."

Problems that are unlocked with the help of the Shakti project

S_1. Human capital growth.

S_2. World production growth.

S_3. Quality of life improvement.

Identifying problems leads to challenges that can be resolved with the Shakti project. Every problem also creates its own group of challenges.

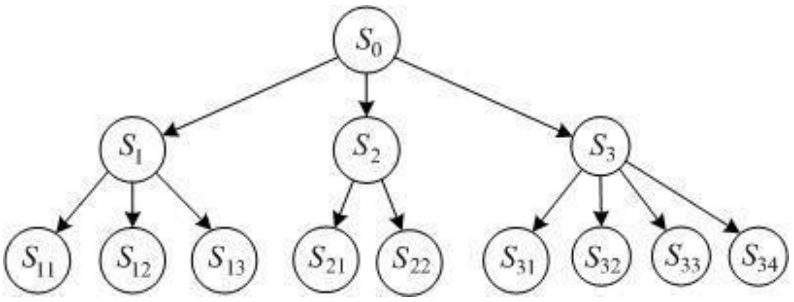
The Shakti Project Challenges

The structure outlined below shows the problems and challenges that will be solved by the Shakti project. Figure 1 is depicted as a tree of goals [4].

It demonstrates how the goals of higher levels are expanded into subordinate goals of a lower level.

S_{11} :	Create and increase opportunities for schoolchildren from low-income families to receive educational services.
S_{12} :	Increase human intellectual level.
S_{13} :	Expands the circle of participants for creating scientific and technological progress, and the implementation of their achievements.
S_{21} :	Industrial and agricultural production growth.
S_{22} :	Goods and services supply growth.
S_{31} :	Consumer's consumption possibilities growth.
S_{32} :	Release low-income families from debts, or at least decrease the sum of such liabilities.
S_{33} :	People from low-income families' participation in cultural, recreational and leisure activities.
S_{34}:	The perfection of the social environment through spiritual, psychological and physical development of people from the marginal communities.

Figure **1:** Shakti project's goal structure (project's goals tree)



There are three levels to the goals tree in Figure 1. The zero levels consist of only one goal – it is the general goal of the project, S_0. Its detailed problems are at the S_1, S_2, and S_3 levels. Level 2 consists of challenges S_{11}, S_{12}, ..., S_{34}.

The Shakti project's mission is implemented based on a unique *Proof-of-Effort (PoE)* monetary protocol, an initiative that is created and supported by a Swiss public benefit Foundation[5] with a new digital currency.

Methods of achieving goals. Shakti project underlying value – the financial security is implemented through the new digital currency called Shakti Coin (SXE). The coin has a stable value of USD 5.00. The SXE value is supported by the decentralized SXE blockchain network and its monetary policies. In the early years of the Shakti project, there will be approximately 4 trillion US dollars in digital currency mined annually and distributed across the world. This currency is directly directed into the educational service sector worldwide; in other words – it will be introduced into the wheels of the world's economy.

One Shakti Coin will be granted to every schoolchild's parent without any interruptions until they reach the age of twenty-one for every day they attend school. In other words, when a

[5] The Swiss Shakti Foundation is domiciled in Zug, Switzerland with a mandate to aid all schoolchildren globally to further their education until their age of twenty-one.

child reaches school age, one SXE will be granted to the child's parent for the day their child attends school.

One Shakti Coin is mined by the parents being in sync with their child's collaborative effort for the child's attendance at school. Upon verification of attendance, Shakti Coin is transferred to the parent's e-wallet automatically. Attending a school daily is the only requirement to earn a coin. Attendance is monitored through various touchpoints automatically. If any student does not attend school without a valid reason *(i.e. does not make the necessary effort to study*) – they do not get their Shakti Coin for that day.

All contributing organizations and individuals who support the children's effort to attend a school also earn a micropayment. 25% of the value of Shakti Coin is earned and distributed between the contributing participants of the project. This can be schools where children are studying, transport companies who assist the schoolchildren by transporting to and from home to school, and other service providers such as music or dance teachers, sports trainers, etc. They all receive a micropayment in proportion to their contribution from the Shakti Network for supporting schoolchildren's efforts to study.

The process of granting SXE will not be influenced by any government or state policies, social changes, or interreligious tensions. It is a decentralized organization, protocol-driven autonomously — driven by the ***will*** of the people. No government or any other organization can stop it or slow it down. Further, the Shakti project does not fall under any sanctions, because the amount of money granted is indeed a micropayment, and the value is insignificant and dispersed to the schoolchild's parents directly, and it is only sufficient to buy food and study materials.

Such an approach can also promote the collaboration of the residents of a village or town to assist every child in their quest for education. We are convinced that it can contribute to a reduction in child labor, child poverty, child abuse, and other crimes against children.

We hope that the Shakti project will engage the entire 2.7 billion schoolchildren into academic participation. Further, they will be entering into the workforce upon graduation. The financial assistance is delivered directly to the active participants, and the Swiss Foundation' Shakti project will bring renewed ***hope*** to humanity.

The mining of the SXE continues forever, as long as there are schoolchildren under the age of twenty-one (21) on planet Earth and who makes an effort to further their education by attending a school. With regards to the birth rate, that means it is constant. However, the dependence of people on the Shakti project's help will become irrelevant over time. Recipients of SXE will become self-sustaining at some point in time, and thus they will not be needing Swiss Foundation's help.

Underlying Monetary Value of a Shakti Coin. When speaking about Shakti Coin production and distribution, we must address the question of what is backing this currency. Understanding the underlying value of the coin is essential for ensuring the viability of the monetary system. Such a guarantee lies in supporting the value of the coin with stocks, goods, foreign currency, gold, and other commodities. It's a matter of common knowledge that money is a universal equivalent for goods and services exchanged, and its quantity has to correspond to the material amount of economic and other produce of the state[6].

In the case of the Shakti project, Shakti Coins do not disrupt the current prevailing economic system. Because, Coins are granted to schoolchildren for attending school, thus the currency immediately earns its HC value. As a result, Shakti Coins invested in the HC become new specific goods and services in due course. HC, created with the help of the Shakti project, is *exactly that* supports the underlying value of the Shakti currency.

1. From faith to confidence

In this chapter, we shall analyze the simplest model of the Shakti project. The simplest model is a primitive abstract of the mathematical description of the project, which provides us with an opportunity to answer questions about the project's implementation. We are talking about the expenses and potential benefits of a dynamic ***human development*** process. At the same time, the model allows verification of a chosen approach for solving previously – the identified problems.

[6] Today, however, world financial systems go even further from insuring actual value. The affordability of goods and services gradually become the means of insurance itself [2].

1.1. Fundamental premises

According to the modern primitive-original accumulation theory, there are two components supporting this process: *the capital itself (as a total of goods, property and other assets used for production and reproduction of goods), and the human capital.* Both of these factors are interrelated. Let's look at the nature of such an interrelation, primarily focusing on human capital's influence on material capital.

First, let us recall basic key definitions.

Let us define the *Gross World Product (GWP)* as a sum of all output of the national measures. This reflects the market value of every final product and service produced within a year, in all economic sectors on Earth, with the aim of consumption, export and accumulation, regardless of which nation produced it. In other words, GWP is a total of all GDPs (gross domestic products) of all countries. Let us denote the GWP variable as W.

Each individual, possessing different strengths and capabilities, is a growth factor in itself. As a reminder, *human capital* (HC) is the sum of an individual's capacity to work and create material, intellectual, and spiritual value. This is embodied in each and every individual, all over the world. The bigger the HC is, the more capacity there is for that individual to create the abovementioned values on Earth. All of that means more significant GWP growth. This growth may be explained by the expansion in the number of expert employees[7], and their greater capabilities to adopt discoveries and to create new ones.

Let us designate the overall GWP volume obtained within the year before the Shakti initiative is implemented as W_0. The size of the global population is L_0. The L_0 variable in this section will be taken as a constant, i.e. $L_0 = \text{const}$.

[7] By the term ''employees," we mean all people who are engaged in the production of goods and services – working people, office workers to entrepreneurs and government leaders.

1.2. Growth of Human Capital during the Shakti project implementation period[8]

For various reasons (primarily the lack of necessary qualifications and the lack of facilities for obtaining them), a specific group of the world's population is not fully engaged in the economic cycle. A subset of this group is people under the age of twenty-one, which includes young men and women who either attend an educational institution or fail to attend one due to poverty. We will define this group of the world's citizens as *u*. The total number of people who belong to this group (class frequency) will be defined as L_u. This group of population is expressed in the mathematical equation as follows:

$$L_u = uL_0. \tag{1.1}$$

The remaining (occupied) population group L_a makes:

$$L_a = (1 - u)L_0. \tag{1.2}$$

Let us define L_a as the basic part of human capital. Thus, the entire working population of the planet with all its capabilities – that's HC. The Shakti project implementation is focused on providing a foundation for its growth.

Let us assume that the Shakti project implementation starts from the time point $t = 0$. Let us set that time point, which is the duration of the Shakti initiative that will affect the education of all people who can work ($T = 20$ years). Due to the Shakti initiative implementation (where $t \geq T$, i.e. when the individual reaches the age of 21) the amount of unoccupied population *u* will be decreased at the expense of the gained qualification by people who didn't have an opportunity to gain it earlier due to poverty. Those who obtained such a qualification will be included in the workforce. Among them are those who were able to study even without the Shakti project's contribution. However, the amount of unoccupied population won't decrease to zero. This is explained by the fact that even under the most promising conditions created by the effect of the Shakti there will be subjects who won't be able to work due to illness, caring for sick children and relatives, caring for elders etc., and people who just don't want to work. Let us

[8] In this paragraph we consider the option of HC development with a constant annual birth rate that is equal to the death rate, taking into the consideration people all over the world.

define the population group that is not engaged in the workforce even at the time of Shakti project realization as *z.* This is a kind of "dry residue" — it's obvious that $u > z$. Over time T, the amount of occupied population L_z will be defined as:

$$L_z = (1 - z)L_0. \quad (1.3)$$

The ***HC*** increment during the time T makes ΔL, which is expressed in terms of:

$$\Delta L = L_z - L_a, \quad (1.4)$$

or using Eq. (1.2) and (1.3) as:

$$\Delta L = (u - z)L_0. \quad (1.5)$$

Where $u - z$ – population group engaged in the workforce as a result of the Shakti project's financial contribution. It includes both children who were not able to study because of family poverty and those who came from well-off families. By granting Shakti Coins to all children for attending school, the project does not diminish schoolchildren's active participation at school.

Let us call this variable:

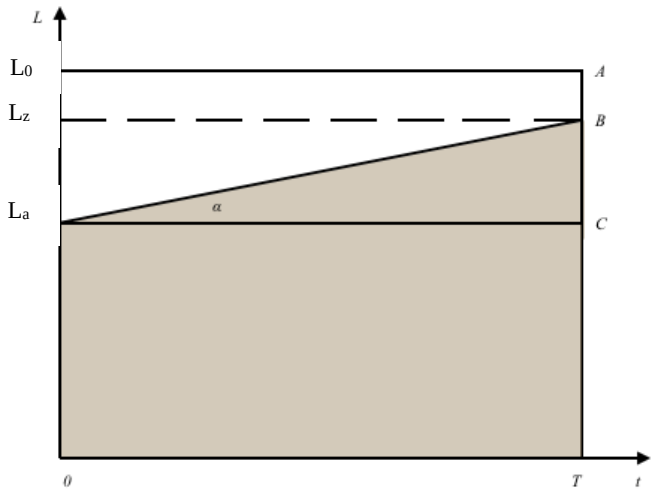
ΔL as *HC total growth*.

It's as if from the beginning of its implementation (i.e. from the $t = 0$ moment) the project will cover all people under the age of 21. Then we can say that due to the project, there will be more and more people engaged in the workforce in accordance with the *linear time dependence.* In reality, by the end of the first year of the project, HC will be supplied only with those individuals who have already reached the maximum age of participation in the project. At t = 0, these individuals were twenty years of age. They were able to study for a brief period — less than one year. Thanks to Swiss Shakti Foundation's initiative. Since they have reached the age of 21, they are no longer eligible to receive Shakti's contribution, but they may continue to grow their personal development and their HC index for many years to come[9] with the

[9] Certain working individuals under 21 might want to stop working and opt to study to improve their qualification, and they may expect to get financial support from the Shakti project beyond the age of 21. However, Shakti's PoE protocol will not be able to offer support, but in general the tuition fee is so small and they may receive other forms of assistance. The amount of people who'll decide to change their jobs for studying is unlikely to be significant.

motivating influence of the Shakti project.

Figure 1.1**:** Employment of population during the Shakti project implementation — refer to the shaded part.



In Figure 1.1, the situation mentioned above is represented by a diagram. The x-axis demonstrates time, while the y-axis reflects human capital.

The rectangular area $0TCL_a$ shows the number of man-years worked by the first part of HC representatives L_a during the time of the project's *fixed working pattern* entry ($t \leq T$). It is easy to say, that in irregular working pattern with the time required for project's implementation (where $t \to T$), skills of employees' who replenish main HC, are going to improve due to the more extended period of schooling. The fixed working pattern appears after a while, where $t = T$. HC will be replenished annually with a fixed amount of most qualified employees in this mode.

The shaded triangle L_aCB characterizes global population that gradually enters into the workforce as a result of the Shakti initiative. BC leg length is matched by the HC, ΔL variable that has been involved in the workforce by the time Shakti project went into the fixed working pattern. That is the total growth of HC that we get during the Shakti project implementation period. The triangular area L_aBC corresponds to the man-years worked by all individuals influenced by the Shakti project during the period of its implementation (people who haven't

reached the age of 21 and who were granted coins for pursuing education).

We assume the global population during the period T remains constant. It means that the death rate during the period $0 < t < T$ equals the birth rate. Children who were born during this period completely compensate for the natural loss of the human population. The Shakti project influenced them as rightful Shakti Coin recipients. However, they are not able to enter the workforce during the Shakti project implementation period as they haven't reached the required age. Such a category of people will replenish HC only from the moment $t = T$. The triangular area L_aL_zB symbolized its dynamics during the interval $0 < t < T$.

Consequently, not only those who start working during the implementation period use financial contributions but also those who won't reach 21 during the time T — thus, these financial contribution is spread throughout the program. These are people who were born during the time $0 < t < T$. The triangular area L_aL_zB characterizes its number.

Therefore, the number of recipients who received money from the Shakti project during its implementation period is proportional to the rectangular area L_aL_zBC.

White rectangle L_zL_0AB symbolizes unavoidable losses of working man-years that were caused by the existence of "dry residue." Interval L_zL_0 stands for the "dry residue" itself, i.e. for the number of people who are not captured or occupied to work or study.

Inclined line L_aB (the rectangle's diagonal L_aL_zBC) separates the part of the population (shaded triangle L_aBC) which is involved in the workforce through the Shakti initiative (created human capital) from the part of the population that is being educated but hasn't been a part of the workforce during the time of the Shakti project implementation. These are people under 21 (white triangle L_aL_zB).

We are interested in line L_aB, which pulls these triangles apart so far as its equation defines the *laws of created human capital production*. This equation takes the form:

$$L(t) = L_a + tan(\alpha) \cdot t. \qquad (1.6)$$

Considering that $tan(\alpha) = BC/L_aC$, we obtain:

$$L(t) = L_a + \frac{BC}{L_a C} t. \quad (1.7)$$

or

$$L(t) = L_a + \frac{L_z - L_a}{T} t. \quad (1.8)$$

Which is the constant, *b*:

$$b = \frac{L_z - L_a}{T} \quad (1.9)$$

We get for the time interval $0 \leq t \leq T$ human capital variable ascends according to the linear equation:

$$L(t) = L_a + bt. \quad (1.10)$$

The influence of the Shakti project caused this motion at the stage of its implementation.

When $t = T$ all HC is expressed as:

$$L(T) = L_a + bT. \quad (1.11)$$

It should be noted, according to the abovementioned reasoning, there is an equation:

$$\Delta L = bT. \quad (1.12)$$

Let us go back to the formula (1.4.). Variable ΔL covers all children, i.e. those who were not able to undertake schooling due to family poverty, as well as those who came from well-off families. Let us define part of the HC total growth ΔL, which was created specifically due to the Shakti project out of people who came from disadvantaged families as *s*.

This number, we shall define as ΔL_s. This variable is expressed as follows:

$$\Delta L_s = s\Delta L. \quad (1.13)$$

The increment ΔL_s — let's call *HC Shakti-growth*. Obviously, this is the incremental cost of education when it comes to the ΔL. Although when doing research on the influence that the Shakti project has on GWP and its components, it is necessary to use only variable ΔL_s.

1.3. Cash expenditures during the Shakti project implementation

Let us assume that m – is the currency unit granted to one student for attending school for one day. It is expected that all schoolchildren start attending school at the beginning of the Shakti project implementation. Thus, all of them will form HC total growth $L_z - L_a$ in future and daily costs of Shakti Coins d_0 can be considered as a constant:

$$d_0 = m\cdot(L_z - L_a) \tag{1.14}$$

or

$$d_0 = m\Delta L. \tag{1.15}$$

Let t – be a certain day, counting from the beginning of Shakti project implementation.

The number of Shakti Coins spent during the period is going to be:

$$S_0\ (t) = 365\cdot m\cdot\Delta L\cdot t, \tag{1.16}$$

where time t is measured in years.

The number of currency units M_0, granted to participants during the time t, it is proportional to the man-years of all the participants studying (rectangle area L_uL_zBC), and it is expressed as follows:

$$M_0 = 365\cdot m\cdot\Delta L\cdot T. \tag{1.17}$$

1.4. About Shakti project influence on GWP growth

Let us analyze how GWP varied due to the implementation of the Shakti project. Let us recollect — we have defined, W_0, in the previous year of Shakti project and the HC variable equals to L_a at the time of commencement.

Let us define GWP accounted for by the one working individual as w. We consider this variable to be average. In the year preceding the project's implementation, it makes:

$$w = W_0 / L_a. \tag{1.18}$$

The HC growth during the Shakti project implementation leads to GWP variable increasing: the more employees are there, the bigger the GWP is.

As HC grows as per the Eq. (1.10), during the $0 < t < T$ variation:

the period we have the following GWP temporal:

$$W(t) = W_0 + wbt. \tag{1.19}$$

That is the law of GWP changing influenced by the Shakti project during the time of its implementation.

When, t = T, at that moment GWP variable reaches the value of:

$$W_T = W_0 + wbT. \tag{1.20}$$

Thus GWP growth ΔW for the moment T comprises:

$$\Delta W = W_T - W_0 = wbT. \tag{1.21}$$

Total of goods, property and other assets we call *the product*. World product growth P_T only during the T period of Shakti project implementation is defined by the triangle area $L_a BC$[10], which is depicted by GWP figure. It is defined as:

$$P_T = \frac{1}{2} w \cdot \Delta L \cdot T \tag{1.22}$$

Let us assume that G is a GWP growth ratio which occurs during Shakti project implementation. In that case:

$$G = \Delta W / W_0.$$

[10] The area of each triangle is equal to one-half the area of the parallelogram.

Example 1

Let us analyze the example of calculation of results obtained from Shakti project implementation. Let us define the following using the data:

GWP (in 2018) amounts to W_0 = 84,840 billion USD.

The Global population in 2018 is 7.7 billion people.

The amount of people who are not engaged in the economic cycle ("dry residue") in 2018 is 3 billion people.

Let's ***assume*** the number of students (recipient of Shakti Coins) is going to be 2 billion people.

T = 20 years; m = 1

For main human capital we have:

$$L_u = 7.7 - 3 = 4.7 \text{ (billion people).}$$

Let us ***assume*** that all educated people resulting from the Shakti project, will start working. That is total human capital growth ΔL during the time T, i.e.:

ΔL = 2 billion people In that time, 20 years, the "dry residue" will be reduced to:

$$3 - 2 = 1.2 \text{ (billion people).}$$

Then

$$L_z = 7.7 - 1.2 = 6.5 \text{ (billion people).}$$

According to (1.9), we have:

$$b = \frac{6.5-4.7}{20} = \frac{1.8}{20} = 0.09 \text{ (billion people) / year.}$$

According to Eq. (1.17) education costs for 20 years are going to be:

Where $T = 20$; $m = 1$; $\Delta L = 2$;

$$M_0 = 365 \cdot 2 \cdot 20 = 14{,}600 \text{ (billion } \textbf{Shakti Coins}\text{)}. \quad (1.23)$$

According to Eq. 1.18, the actual GWP per working individual on an annual basis (Lu = 4.7 billion) is:

$$w = \frac{84{,}840}{4.7} = 18{,}051 \text{ (USD/person)}. \quad (1.24)$$

GWP growth during Shakti project implementation in accordance with Eq. 1.19 is expressed in terms of:

$$W(t) = 84{,}840 + 18{,}051 \cdot 0.09 \cdot t$$

or

$$W(t) = 84{,}840 + 1{,}625 \cdot t.$$

Within 20 years (at the time of project's transition into the fixed working pattern) GWP will make:

$$W(20) = 84{,}840 + 1{,}625 \cdot 20 = 117{,}332 \text{ (billion USD)}. \quad (1.25)$$

Thus, GWP total growth ΔW during Shakti project implementation equals:

$$\Delta W = W(20) - W_0 = 117{,}332 - 84{,}840 = 32{,}492 \text{ (billion USD)},$$

and its growth ratio is expressed in terms of formula (1.23) as:

$$G = \frac{32{,}492}{84{,}840} = 0.383$$

As an example, we can say that after three (3) years of project's fixed working pattern

(for $t > 20$ years) total GWP growth will make a variable P which will be expressed as follows:

$$P = 3\Delta W = 3 \cdot 32{,}492 = 97{,}476 \text{ (billion USD)},$$

i.e. , which exceeds the 2018 GWP. That means the following:

In 2018, the GWP was $W_0 = 84{,}840$ billion USD. In 20 years, the project entered into a fixed working pattern and started giving an annual GWP growth of 32,492 billion USD. Thus, from the period of 2037 to 2039, the world's product growth P will grow to 97,476 billion USD in total.

Let us analyze first the extent of the world productivity will be impacted during the project's implementation phase. Let us remind that $\Delta L = 2$ billion people, while the variable $w = 18{,}051$ USD/person. Then, in accordance with Eq. (1.22) we have:

$$P_T = 0.5 \cdot 18{,}051 \cdot 2 \cdot 20 = 361{,}020 \text{ (billion USD)}.$$

Now, during the project implementation period, world product will increase to 361,020 billion USD. By virtue of the fact that $W_0 = 84{,}840$ billion USD, we may predicate that Shakti project implementation process itself in 20 years will bring profit D is four times larger than 2018 GWP. Indeed:

$$D = \frac{P_T}{W_0} = \frac{361{,}020}{84{,}840} = 4.23$$

The results presented above demonstrate how the Shakti project evolves during the implementation phase, *the variables* — the general behaviour of the human changes as the financial condition changes, and how it will impact the global GWP and the HC growth directly. However, the total HC growth includes all people under 21. These are both children from well-off families and children who came from disadvantaged families. Speaking about the benefits of Shakti project implementation, we need to consider the effect of children from underprivileged families entering HC. For this purpose, we need to separate a component which appears *because of* the Shakti project implementation from general characteristics. Thus, we need to replace total HC growth ΔL obtained in the abovementioned formulas with Shakti-growth ΔL_s according to the Eq. (1.13), i.e. with variable $\Delta L_S = s\Delta L \cdot S$ – stands for total HC

‘’born’’ — growth created by the participation of people from the disadvantaged families ***only***, otherwise will continue to remain as ‘’dry residu’’ unless and until an entity is able add “Shakti” to them.

After replacing ΔL with ΔL_S, we obtain the following results:

During the time interval, $0 < t < T$ following linear law:

Shakti-HC grows in accordance with the following Eq.:

$$L_S\ (t) = L_a + sbt. \tag{1.26}$$

Shakti-HC is the created human capital resulting from the Shakti project during its implementation period:

$$\Delta L_S = s\Delta L. \tag{1.27}$$

The laws of the Shakti-GWP growth due to the Shakti project initiative during the time interval, $0 < t < T$, is expressed as:

$$W_S\ (t) = W_0 + swbt. \tag{1.28}$$

The Shakti-GWP growth during the time, T, equals:

$$\Delta W_S(T) = W_S(T) - W_0 = swbT. \tag{1.29}$$

GWP variable that was created due to the Shakti-GWP growth $\Delta W_S\,(T)$ during time T, is expressed as:

$$W_S(T) = W_0 + swbT. \tag{1.30}$$

Shakti-world product growth P_{TS} during Shakti project implementation period T is expressed as:

$$P_{TS} = sP_T. \tag{1.31}$$

Let us present results (1.26) – (1.31) numerically.

Example 2

We shall use the result that we obtained in the previous example as an initial data. When defining variable *s*, we will rely upon the fact that 50% out of 2.7 billion children do not participate in the Shakti project at all, i.e. $s = 0.5$.

The Shakti-HC variable created during the time $0 < t < T$ is expressed as:

$$\Delta L_S = 0.5 \cdot 2.7 = 1.325 \text{ (billion people)}, \tag{1.32}$$

its growth is defined with the Eq. (1.26):

$$L_S(t) = 4.7 + 0.5 \cdot 0.09 \cdot t. \tag{1.33}$$

or

$$L_S(t) = 4.7 + 0.045 \cdot t. \tag{1.34}$$

Law of Shakti-GWP growth during the period $0 < t < T$ is expressed as per Eq. (1.30):

$$W_S(t) = 84{,}840 + 0.5 \cdot 18{,}051 \cdot 0.09 \cdot t \tag{1.35}$$

or

$$W_S(t) = 84{,}840 + 812 \cdot t \tag{1.36}$$

Shakti-GWP growth — $\Delta W_S(20)$ during implementation of the project equals, as defined previously ($\Delta W_S(T) = W_S(T) - W_0 = swbT = W(20) - W_0 = 117{,}332 - 84{,}840 = 32{,}492$ (billion USD)):

$$\Delta W_S(20) = 0.5 \cdot 32{,}492 = \textbf{16,246 (billion USD).} \tag{1.37}$$

As defined previously, the World product growth P_T during the period T of Shakti project implementation is defined by the triangle area $L_a BC$.

$$P_T = \frac{1}{2} w \cdot \Delta L \cdot T$$

When it comes to Shakti-growth of world capital P_{TS} during the time of the project implementation period T is expressed as:

$$P_{TS} = 0.5 \cdot 361{,}020 = 180{,}510 \text{ (billion USD).} \quad (1.38)$$

Let us define the cost of the education for the abovementioned category. By using the result of example 1, we recall Eq. (1.23):

$$M_0 = 0.5 \cdot 14{,}600 = 7{,}300 \text{ (billion } \textbf{Shakti coin}\text{).} \quad (1.39)$$

2. The Modified model of Shakti project implementation

2.1. What is the modification of a model?

While developing the simplest model of Shakti project implementation, we have taken the world's population L_0 as a constant function (L_0 = const) during the whole time of implementation T = 20 years. In the following section we will take L_0 as the one that is dependent on time. Human population growth can be seen on all stages of its development as there are natural reasons for it. Looking at the world's population growth dynamics after World War II, one can notice stable growth in the human population. The post-war period is free from vast natural and social disasters, and one can extend that assumption to the Shakti project implementation period. This is despite the arms race, it also can be marked by social evolution and human orientation in general. As a result, it is relatively homogeneous in terms of evolutionary dynamics of humanity's development.

What is this dynamics?

In paper [3] world population is presented in Table 2.1 (starting from 1951).

Table**:** 2.1 History of world population changes

Year	Population	Population growth
1951	2 540 807 495	N/A %
1952	2 586 957 085	1.82 %
1953	2 632 787 502	1.77 %
1954	2 678 896 551	1.75 %
1955	2 725 766 615	1.75 %
1956	2 773 762 631	1.76 %
1957	2 823 131 978	1.78 %

1958	2 874 013 095	1.80 %
1959	2 926 452 535	1.82 %
1960	2 981 394 663	1.88 %
1961	3 036 978 803	1.86 %
1962	3 094 237 385	1.89 %
1963	3 153 380 494	1.91 %
1964	3 214 727 506	1.95 %
1965	3 278 555 015	1.99 %
1966	3 345 008 017	2.03 %
1967	3 414 025 267	2.06 %
1968	3 485 254 803	2.09 %
1969	3 558 117 546	2.09 %
1970	3 632 007 495	2.08 %
1971	3 706 609 481	2.05 %
1972	3 781 872 344	2.03 %
1973	3 857 602 433	2.00 %
1974	3 933 417 605	1.97 %
1975	4 008 989 361	1.92 %
1976	4 084 105 387	1.87 %
1977	4 158 756 254	1.83 %
1978	4 233 302 166	1.79 %

1979	4 308 410 980	1.77 %
1980	4 384 771 573	1.77 %
1981	4 462 682 114	1.78 %
1982	4 542 088 143	1.78 %
1983	4 623 131 680	1.78 %
1984	4 706 216 901	1.80 %
1985	4 791 660 298	1.82 %
1986	4 898 970 836	2.24 %
1987	4 989 616 230	1.85 %
1988	5 081 956 782	1.85 %
1989	5 174 616 988	1.82 %
1990	5 266 183 401	1.77 %
1991	5 355 950 662	1.70 %
1992	5 443 722 939	1.64 %
1993	5 529 621 549	1.58 %
1994	5 613 760 957	1.52 %
1995	5 696 335 791	1.47 %
1996	5 777 414 187	1.42 %
1997	5 856 964 684	1.38 %
1998	5 935 153 167	1.33 %
1999	6 012 508 224	1.30 %
2000	6 089 825 349	1.29 %

2001	6 167 406 568	1.27 %
2002	6 245 218 155	1.26 %
2003	6 323 402 931	1.25 %
2004	6 402 104 428	1.24 %
2005	6 481 482 361	1.24 %
2006	6 561 634 842	1.24 %
2007	6 642 621 707	1.23 %
2008	6 724 367 437	1.23 %
2009	6 806 802 897	1.23 %
2010	6 889 811 477	1.22 %
2011	6 973 271 757	1.21 %
2012	7 057 184 484	1.20 %
2013	7 141 539 483	1.20 %
2014	7 226 154 730	1.18 %
2015	7 310 679 524	1.17 %
2016	7 397 776 362	1.19 %
2017	7 586 520 598	1.20 %
2018	7 576 951 385	1.21 %

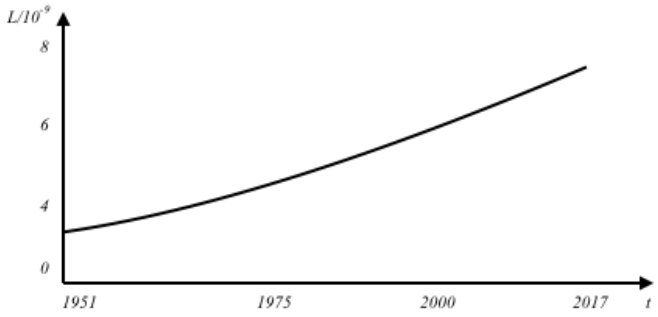
Note: Information in Table 2.1 is presented as of January 1 of the corresponding year.
Ref: https://countrymeters.info/ru/World/

Information in Table 2.1 can be used to forecast a number of Earthmen beyond the years of 2018. And such a representative sample guarantees the stability of forecast results.

2.2. Natural population growth consideration

To determine the nature of population changes $L = L(t)$, in 1951 — 2017, let us present the results of Table 2.1 in graphics (Figure 2.1).

Figure 2.1: Graphical description of the world's population *L* starting from 1951 (billions of people)



One can notice that evolutionary connection graph is well approximable with a linear function of the following form:

$$L(t) = R + at. \qquad (2.1)$$

Variable *R* means the number of people that lived on the planet in 1951. In this case it's *R* = 2 540 807 495 people. Variable *a* is defined as the ratio of population growth over 66 years to the same period of time and is expressed in terms of:

$$a = (7.586 – 2.541) /66 = 0.0764 \text{ (billion people) / year,}$$

i.e. $a = 0.0764$ (billion people) / year. Time *t* in the equation (2.1) is measured in years further as well.

When substituting numeric values, the evolutionary line (2.1) will be as follows:

$$L(t) = 2.541 + 0.0764 \cdot t \quad \text{(billions of people).} \qquad (2.2)$$

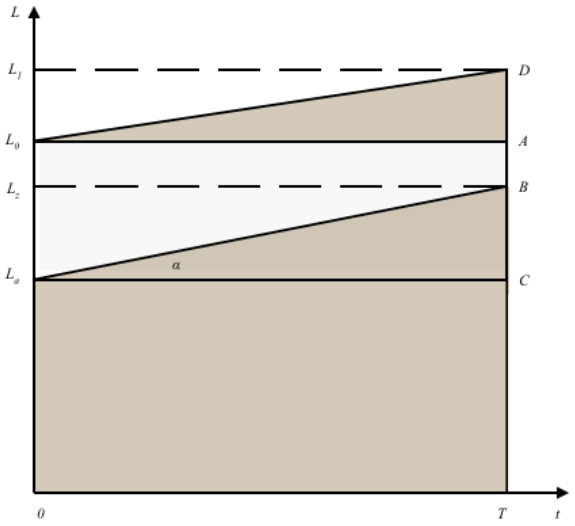
Line (2.2) presents world population changes to time. This function is needed to forecast human population development *under the influence of natural factors* during the Shakti project implementation period. By natural factors, we mean reasons for world population growth that *are not affected by the Shakti project*. These are natural reasons. They exist in the human population by themselves and are not generated by the Shakti project. Primarily, these are positive changes in people's lives under the influence of scientific progress, the perfection of business communications, improvement of labor conditions, welfare, etc.

Function (2.2) refers to the period from 1951 to 2018. However, a sustainable behaviour of this line during a sufficient period of time — let us assume beyond that. i.e., during the Shakti project implementation period from 2019 to 2019+*T its expression won't change*. **This assumption is the basis for further research.** By adopting this assumption, let us think that the world population will change in a linear fashion during the project's implementation period according to the equation (2.2).

Let us remind ourselves, in our earlier discussion we have taken this ‘’count’’ as a constant. In Figure 1.1, taken from the previous work, it was presented as a constant $L = L_0$. Now during the time of the project's implementation the population variable is going to be switching and will be shifting up in the L-axis over time. Naturally, the variable that stands for the main part of human capital L_a and in our case will be constant (L_a = const), the same as in the model without birth rate.

Graphical description of the new situation can be seen in Figure 2.2. Within the time T = 20 years, *the* world population will reach the value, designated with a symbol L_1. The amount of man-years worked by the main part of human capital representatives L_a during the time that is needed for the project to get into the stationary mode remains the same and is defined by the area of rectangle 0TCL_a.

Figure 2.2 **:** Graphical description of world population employment during Shakti project implementation period, taking into the consideration pro-birth at the cost of the natural factors that are not related to the project itself



Since the increase of the demographic population is developing through newborns, its whole growth during the period of the project's implementation T can be seen in the population group that takes part in the Shakti project and gets Shakti Coins.

The difference between people, symbolized by triangles L_aL_zB and L_0DA, lies in the fact that the first group of people corresponds to natural replacement of older dying people with the newborns, while the second one – to the expanded reproduction of the human population.

By modifying the evolutionary Eq. (2.2) in connection with the beginning of Shakti project implementation, we get that the number of people from the abovementioned group is growing in accordance with the law:

$$L(t) = L_0 + a \cdot t \text{ (billion people)} \qquad (2.3)$$

or numerically:

$$L(t) = 7.7 + 0.0764 \cdot t \text{ (billion people).} \qquad (2.4)$$

Therefore:

$$L_1 = L(T) = L_0 + a \cdot T \text{ (billion people)} \qquad (2.5)$$

or numerically:

$$L_1 = L(20) = 7.7 + 0.0764 \cdot 20 = 9.03 \text{ (billion people).} \quad (2.6)$$

Because of fertility throughout the project's implementation time T, world population increases by δL, that equals the length of the segment L_0L_1 (Figure 2.2). It means that increment in tellurians during the project's implementation *(T = 20 years*) would be:

$$\delta L = L_1 - L_0 = 1.53 \text{ (billion people).} \quad (2.7)$$

Since all people in the world who make a group δL, were born during the time of project's functioning, thus they became its participants and Shakti Coin's recipients. However, neither of them (supposing all these people were studying 20 years) won't increase HC in the course of time $0 < t < T$. They will become a part of HC 20 years after the project's implementation.

Line L_0D in Figure 2.2 symbolizes linear growth of group δL, whereas the resources spent on educating these people for a number of days are represented by the area of triangle L_0DA.

Daily educational costs spent on this group are not constant. Considering the equation (2.4), one may notice that the number of children l, born in-between $0 < t < T$, follows the law:

$$l(t) = 0.0764 \cdot t \text{ (billion people).} \quad (2.8)$$

Total amount N of man-years taken by all the people of this category to study results in:

$$N = 0.5 \cdot \delta L \cdot T. \quad (2.9)$$

If m – is a number of currency units granted to one student for attending school in a single day, then daily costs *d1* are presented as:

$$d_1(t) = m \cdot l(t) = m \cdot 0.0764 \cdot t. \quad (2.10)$$

The number of Shakti Coins spent to educate the entire group of people, which makes population growth, counting from the beginning of the project's implementation, at the moment t, is written as:

$$S_1(t) = 0.5 \cdot 365 \cdot d_1(t) \cdot t \quad (2.11)$$

or

$$S_1(t) = 13.9 \cdot m \cdot t^2. \quad (2.12)$$

Taking into consideration (2.8), in the course of time T, the number M_1 of Shakti Coins spent to educate the entire group is equals to:

$$M_1 = S_1(T) = 13.9 \cdot m \cdot T^2. \quad (2.13)$$

Let us move to education input analysis of both groups of students.

The number of Shakti Coins d, that are necessary for distribution between all the students at any particular day t, counting from the beginning of project's implementation, in accordance with (1.15) and (2.10), equals:

$$d(t) = d_0 + d_1 = m \cdot \Delta L + m \cdot 0.0764 \cdot t \quad (2.14)$$

or

$$d(t) = m(\Delta L + 0.0764 \cdot t). \quad (2.15)$$

The number of Shakti Coins, S spent to educate all the students to time t, with regard to (1.16) and (2.11), equals:

$$S = S_0 + S_1 = 365m \cdot \Delta L \cdot t + 0.5 \cdot 365 \cdot d_1(t) \cdot t \quad (2.16)$$

or

$$S(t) = 365m(\cdot \Delta L + 0.5 \cdot d_1(t))t. \quad (2.17)$$

Total amount of Shakti Coins M invested into the HC during the time T, in accordance with (1.15) and (2.11), is:

$$M = M_0 + M_1 = 365 \cdot m \cdot \Delta L \cdot T + 0.5 \cdot 365 \cdot m \cdot \delta L \cdot T \quad (2.18)$$

$$M = 365m(\Delta L + 0.5 \cdot \delta L)T. \quad (2.19)$$

Example 3

Let us illustrate the results obtained using an example by taking up $m = 1$. According to Eq. (2.7) $\delta L = 1.53$ (billion people). The number of people studying in the group of children, who were born before the project's implementation and used project's grants, makes 2 billion people.

20 years after the project's implementation, the world population will make

$$L_1 = L(20) = 7.7 + 0.0764 \cdot 20 = 9.028 \text{ (billion people).} \quad (2.20)$$

The daily amount of Shakti Coins required to provide for all students depends on the time needed for project implementation, and it is expressed through the formula:

$$d(t) = 730 + 27.9 \cdot t. \quad (2.21)$$

According to (2.9), total amount N of man-years spent on educating all the people who were born during the project's implementation equals:

$$N = 0.5 \cdot 1.53 \cdot 20 = 15.3 \text{ (billion).} \quad (2.22)$$

After plugging in numerical values, the equation (2.17) becomes:

$$S(t) = 730t + 13.9 \cdot t^2. \quad (2.23)$$

The amount of Shakti Coins required for their education equals:

$$M_1 = 365 \cdot 15.3 = 5{,}600 \text{ (billion Shakti Coins).} \quad (2.24)$$

The total number of Shakti Coins M invested in the HC as per Eq. (1.23) and (2.24) during the project's implementation stage is:

$$M = 14{,}600 + 5{,}600 = 20{,}200 \text{ (billion Shakti Coins).} \quad (2.25)$$

This is the Shakti project's global investment into the HC, as modeled at the stage of its implementation.

The results obtained demonstrate that considering extended reproduction of human population (in other words – world population growth), significantly pushes boundaries of "covering" people with Shakti project (over 0.38 times). Moreover, we cannot deny the fact of fertility.

If we take the same proportion between schoolchildren from well-off and low-income families ($s = 0.5$), as we demonstrated in Example 1, for extended reproduction, then the amount of Shakti Coins for the last category of schoolchildren as per Eq. (2.24) will make:

$$M_{1S} = 0.5 \cdot 5{,}600 = 2{,}800 \text{ (billion Shakti Coins).} \quad (2.26)$$

It should be noted that the project's "total" coverage of schoolchildren from well-off and low-income families significantly increases the amount of Shakti Coins needed at the stage of the project's implementation. Indeed, according to Eq. (2.25) the total amount of money will be:

$$M = 20{,}200 \text{ (billion of Shakti Coins).} \quad (2.27)$$

Moreover, the amount of money required for schoolchildren from low-income families — as per Eq. (1.39) and (2.26), is:

$$M_S = M_{0S} + M_{1S} = 7{,}300 + 2{,}800 = 10{,}100 \text{ (billion Shakti Coins),} \quad (2.28)$$

i.e. , twice as little.

Speaking about the extended growth of human population δL, at the stage of project's implementation these people don't take part in production and are not part of HC over a period of $0 < t < T$. They are getting ready to enlarge HC at the moment $t = T$. At this particular moment all the growth δL enlarges HC. By taking, $s = 0.5$ per Eq. (2.7), we find out that the respective part of Shakti-HC makes:

$$\delta L_S = 0.5 \cdot \delta L = 0.5 \cdot 1.53 = 0.765 \text{ (billion people).} \quad (2.29)$$

Total HC growth at the moment of the Shakti project enters a fixed working pattern makes $\Delta Ł$, which equals:

$$\Delta Ł = \Delta L + \delta L = 2 + 1.53 = 2.53 \text{ (billion people).} \quad (2.30)$$

Also, Shakti-growth $\Delta Ł_S$ makes:

$$\Delta Ł_S = \Delta L_S + \delta L_S = 1 + 0.765 = 1.765 \text{ (billion people).} \quad (2.31)$$

The last variable is the one that determines the real input Shakti project makes into the world HC total.

Conclusions

In this paper we have derived *Human Capital* growth during the Shakti project's implementation in accordance with the following law:

$$W(t) = W_0 + swbt,$$

Where:

W_0 = 84,840 – GWP in 2018 (billion USD);

s = portion of HC, created out of un-endowed family members;

w = 18,051 – GWP per employee in 2018 (USD/person);

b = 0.09 – growth rate (billion people) / year);

t – time (in years)[11].

We have mathematically proven that the Shakti Coin Project will yield 400% economic growth over twenty years nation-by-nation; simply put, Shakti Coin will quadruple the economic prosperity of every nation's GDP over twenty years.

HC growth, as well as GWP growth during the period of the Shakti project's implementation, may deviate from the linear law for various reasons. Such fluctuations may appear as a result of mass epidemics, natural disasters, wars, insurgencies, etc. However, these changes won't have any significant impact on the process applied herein. The fluctuations that may result in will only lead to linear dependency recovery.

[11] 2019 is adopted as a starting point due to the fact, that at the moment of writing this paper we have no data for 2018. However, the formula, suggested above, is suitable for a certain year used as a starting point.

There are a number of reasons and assumptions we have relied on and cited in our studies. However, we wish to bring the following two views to the reader's attention.

First, we haven't taken into account how the natural growth of technology influences the global economy. The history of the global economy shows that even in conditions of permanent HC, GWP grows at the expense of technical advances (people equipped with the best tools produce better goods and work better). However, relative to the Shakti project, this is an external factor. It doesn't have to be considered when assessing the impact of the Shakti project itself on global economic outlook.

Second, we didn't consider the natural evolution of increasing HC index, birth rate and other advancements of humanity. All these growths are external factors. We are saying "almost" — better living conditions provided by the Shakti project create hope for a better future, and this may increase the birth rate. This is an internal factor of the project, and it has to be taken into account. Results from the birth rate increase under the influence of the project may be expected only during a fixed working period. Its intuitive judgement demonstrates that in comparison to the gross fixed capital creation — it will be irrelevant.

In either case, the equation mentioned above can be taken as a basis for calculations which are connected with the Shakti project. And if it is necessary to adjust it, we may include other growth factors.

Figure 2.3 symbolizes the researched based depiction of the Shakti project implementation.

Figure 2.3**:** From faith to confidence.

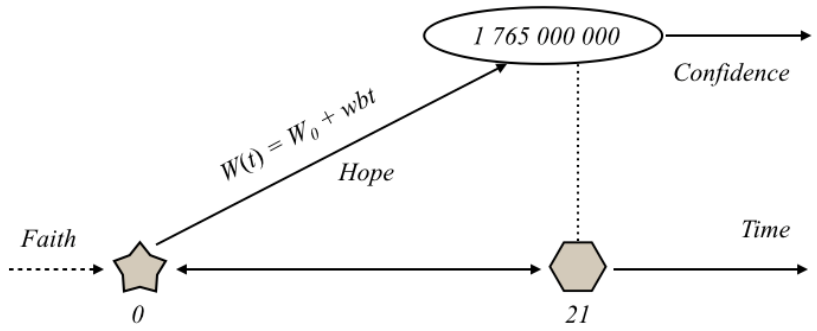


Figure 2.3 emphasizes the fact that before the Shakti project starts, most people may only *believe* in having their lives changed positively. Without demanding any evidence — belief in change is the last crucial information they are seeking.

The Shakti project opens ***up*** the development prospects of humanity, which creates hope for people. Hope is a feeling which accompanies the anticipation of something desired coming soon. It creates a positive mood when an individual looks toward the future [5]. People provided with hope know that not only they can engage in a journey of progress, but also able to achieve everything they want to if they move forward. Such people take up an active role in living life.

While moving forward on the educational path, a person's hope becomes *confidence in the future*, which results in satisfaction with life. When a person gets a stable lifeline, he is content with the gap between their condition and what they deserves is small. There are several factors that demonstrate the satisfaction of one's life, which includes:

- close social bonds
- work satisfaction
- health condition
- leisure time
- having some personality, which provides self-esteem, extroversion, the meaning of life and good mood.

When positive emotions accompany one's life — at that moment, that individual becomes happy and satisfied with their purpose of life. And it's a matter of common knowledge that happy people live longer than those who are unhappy. Thus, we submit to you that the Shakti project will bring many benefits to humanity, in many folds.

Two Guys from the Milky Way[12]

[12] Swiss Shakti Foundation

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