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Sustainable youth community development in Egypt

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Abstract Egypt passed through a critical political transitions and revolutions starting from early 2011 until the arrival of the democratically elected President Abdel-Fattah El-Sisi. The primary slogans of protestors during Egypt's first 2011 Revolution were 'bread, freedom, and justice for all (national dignity)'. These very same issues were addressed previously at the Millennium Summit in September 2000, where the largest gathering of world leaders in history adopted the UN Millennium Declaration, and set up the Millennium Development Goals (MDGs), proceeded by the Sustainable Development Goals (SDGs). Both the MDGs and SDGs aim to extend the rights of each person to quality healthcare, basic education, shelter, and security. Although, achieving the Development Goals is a top priority on the agenda of Egyptian policy makers, some of the goals have not been achieved. In addition, the global economic crisis since 2008 has imposed new challenges and restrictions that decelerated achievement within the agreed time frame set by the United Nations.

Egypt has strong potential growth possibilities, a significant human resource base, and a substantial quantity of un-recycled wastes that could be directed toward sustainable development.

The intention of this paper was to discuss and propose a methodology, which promotes a productive workforce, and addresses environmental concerns in aims of supporting the UN Millennium Declaration.

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1. Introduction

Since Egypt's first revolution in 2011, a variety of political and economic grievances have been expressed that are deeply inter-related. The revolution's core values were not merely political in nature aimed at the pursuit of fundamental liberties. Its uprisings were also related to economic problems of mounting

food prices and a stagnant standard of living marked by low wages. In addition, issues arising from a collapsing healthcare system, the continuing deterioration of the quality of education, and environmental degradation were related to government failures, chronic corruption, and an abandonment of state responsibilities.

The Millennium Summit held in September 2000 was the largest gathering of prominent world leaders ever held. It drafted and adopted the United Nations Millennium Declaration. This international agreement forged a new global partnership to reduce extreme poverty and established a series of time-bound targets, with deadlines to be achieved by 2015.

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These reduction measures pertaining to world poverty have become known as the Millennium Development Goals (MDGs) [3], followed by the Sustainable Development Goals (SDGs) on 25 September 2015 [20,21].

“According to UNDP [18], The Millennium Development Goals are the world’s time-bound and quantified targets for addressing extreme poverty in its many dimensions— income poverty, hunger, disease, lack of adequate shelter and exclusion—while promoting gender equality, education, and environmental sustainability. They are also basic human rights—the rights of each person on the planet to health, education, shelter, and security as pledged in the Universal Declaration of Human Rights and the UN Millennium Declaration.”

[18]

“The SDGs includes a set of 17 Sustainable Development Goals to end poverty, fight inequality and injustice, and tackle climate change by 2030.”

[20,21]

According to the United Nations Development Program [20,21], Egypt has achieved some of the MDGs and objectives set forth. However, the country has yet to accomplish some of the most pertinent goals agreed upon in principle at the Millennium Summit held in the United Nations Headquarters, New York City, USA. The successful implementation and application of either MDGs or SDGs should be a top priority on the agendas of key policy makers in Egypt in fulfilling the demands of the people demonstrated during the Arab Spring Revolutions.

2. Problem definition

According to the African Development Bank [1], about 60% of the population in Egypt is below the age of 30 and suffers from high unemployment. The Revolution of the 25th of January in Egypt has exacerbated economic hardships, maintained high levels of poverty and has preoccupied government agencies with the fallout stemming from the revolution. The economic outlook since the July 2014 Presidential election looks optimistic. GDP growth in the fourth quarter of the 2013/14 fiscal year (FY) was 3.7% compared to 1.5% a year earlier. GDP is expected to grow by 3.8% in FY 2014/15 and 4.3% the following year, compared to 2.2% in 2013/14 [1].

In addition, In 2013 26.3% of the population lived below the poverty line. The economic downturn during the last four years has significantly affected the labor market and unemployment has risen to 13.3% from 9% in June 2010. More alarmingly, 70% of the 3.7 million unemployed are between the ages of 15 and 29. This means that the country has been unable to generate new jobs for these young people, despite their lower wage expectations.

[1]

Furthermore, from an environmental point of view, burning agricultural waste as rice straw especially during the temperature inversion period of October–December known is as the Black Cloud phenomenon. As per the World Bank [23], the five contiguous governorates to the north (Sharkiya, Dakh-

liya, Gharbiya, Qalyoubiya, and Kafr ElSheikh) generate an estimated 2.78 million–2.97 million tons of crop residue that are not utilized.

According to an estimate of the Egypt Energy-Environment review, the mean local damage cost (that is, not including the impacts of global warming) due to air pollution from the energy and agricultural residues sectors was LE 6.5 billion per year in 1999/2000. This is approximately 45 percent of the damage costs from all environmental degradation. It represents a real cost to the Egyptian economy of approximately 1.5 percent of GDP, corresponding to LE 100 per person per year., Egypt does not have a comprehensive strategy for agricultural waste and rice straw. However, the MSEA and the Ministry of Agriculture have embarked on a series of investment projects without due consideration of their cost and benefits. The government is seeking a partnership with the private sector to recycle agriculture waste and stop waste burning.

[23]

Accordingly, the Egyptian federal government actively encourages the recycling of rice straw instead of disposal through burning. Yet, despite these efforts, the black cloud occurrence continues contribute to poor air quality and air pollution overall.

These problems ascending from deteriorating economic conditions and environmental degradation are clearly outlined in the MDGs, proceeded by the SDGs. This would require increased coordinated effort across government agencies, and a strong partnership between the national government and its citizens. Synergy between governmental efforts and the contribution of local communities throughout Egypt is required in order to bring the development goals closer toward achievement, and improve the standard of living for all Egyptians.

3. Theory

As discussed in the previous section, Egypt faces severe political, social, economic, and environmental problems.

MDG’s 1 and 7 and SDG’s 1, 7, 8 and 11 address the primary objectives related to the emphasized problems of this research. With these highlighted problems in mind, Egypt has been privileged with beneficial resources and potentials, that have been either underutilized or neglected which could offer a substantial contribution in resolving these areas of concern.

In efforts to address the current challenges in achieving quality and productive advancements, the following theory has been proposed. The proposed theory sets the framework for successful implementation of these related goals, which favors effective unitization of Egypt’s developmental potentials that coincides with the intentions of the Egyptian Revolution.

Accordingly, the following equation in Fig. 1 can be concluded.

3.1. Progress of Related sustainable cities development Goals in Egypt

3.1.1. Employment

MDG 1, Target 2, pointed on achievement of full and productive employment and decent work for all, including women

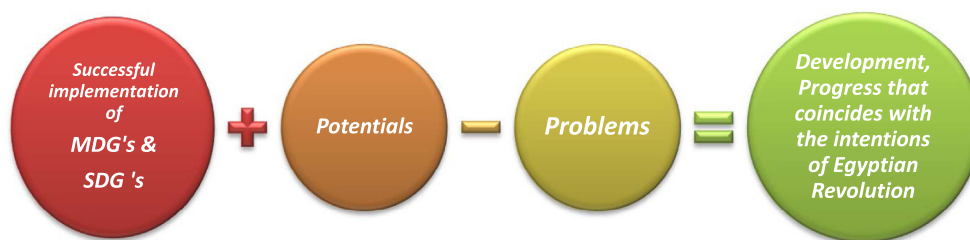


Figure 1 Development progress equation.

and young people [20,21], while SDG 8 called for Promotion of inclusive and sustainable economic growth, employment and decent work for all [20,21].

The realization of achieving full and productive employment for Egyptian youth and women is still offtrack according to UNDP [20,21]. Demands for social justice, equality and a brighter economic future are some of the main issues raised by the recent social unrest in Egypt. According to UNDP reports, Egypt has achieved significant progress in some areas of improving poverty, unemployment, productivity, training of youth, and the promotion of women in the workforce. Nevertheless, both absolute and relative poverty rates have increased in the past decade. According to the latest available data from the World Bank, the percentage of population in Egypt living below the national poverty line – a measure of relative poverty – increased from 16.7% in 2000 to 22% in 2008. Moreover, the proportion of people living on less than \$1 US per day rose slightly from 1.8% in 2000 to 2% in 2005 [8].

Unemployment rates have reached about 23% among males between 15 and 24 years of age. Moreover, almost 60% of those employed in 2006 were informally hired. The percentage increases to 80% for those working in the private sector [20,21]. About 75% of the jobs created between 1998 and 2006, were found in unregulated informal sectors. These jobs are neither productive nor adequate for sustaining an equitable standard of living. As per ILO [7], quality and decent jobs as well as equal opportunities for all, are critical elements in translating higher employment into lower poverty risks. In addition, the percentage of those working in permanent full-time jobs has dropped from 89% in February 2005 to 82% in 2008. These trends indicate the difficulties that antagonize the nation in achieving key MDGs by the proposed deadline of 2015 [19–21].

3.1.2. Ensuring environmental sustainability

MDG7, Target 12, aimed to integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources, while target 15, called by 2020, that countries have to achieve a significant improvement in the lives of at least 100 million slum dwellers. Moreover SDG 11 called to promote inclusive and sustainable economic growth, employment and decent work for all.

As per United Nations Development Program report for Egypt 2010, MDG 7, Target 12 has not been achieved as planned, while target 15 remains considerably offtrack (Fig. 3).

Despite increased investment and targeted government policies, progress on environmental sustainability has been slow. High population growth is imposing a heavy burden on Egypt's natural resources. Environmental sustainability

remains a challenge that needs coordinated efforts to cope with the prevailing problems resulting from the growing demands placed on natural resources compounded by high levels of population growth.

To ensure environmental sustainability, principles need to be implemented to further develop integrated policies and programs that reverse the trend of depleted environmental resources. According to MSEA [9], one of the leading causes of air pollution in Cairo includes burning the agricultural wastes, especially during the periods of rice straw harvest. Strategies should implement to control and limit Carbon Dioxide emissions. Greater efforts need to be exerted in order to reduce the level of Green House Gases and mitigate the negative impacts of climate change.

According to UNDP [19–21], both the number and proportion of urban population, which live in slums, have decreased during the period from 1990 to 2007 by about 1.9 million people. Thus, it has contributed to achievement of the MDG global target, even though it still represents a high proportion of the urban population (more than one-third the populations). The slum areas could be, categorized into two groups based on their status and possibility for development:

- Slum areas that could be developed.
- Slum areas that would be difficult to develop.

Regarding the first group, the national program for upgrading these slum areas started in 1993 [20,21]. The development scheme is contingent upon the level of deterioration of each of the classified slum areas. The national program for improving the slum areas included initiatives to upgrade drinking water sources, produce effective sanitation systems, enhance the quality of housing, and promote public awareness campaigns [19–21].

Concerning the second group of slum areas, the policy is either to temporarily relocate inhabitants in order to rebuild and develop the community, or to permanently evict the occupants and transfer to a new area, so that the land could be further utilized for other investment opportunities that would fund the relocation program [19–21].

According to CAPMAS [4], from 1993 until the end of 2007, 3.148 billion Egyptian pounds were allocated to remove or develop a total of 1221 slum areas in all governorates. By mid-2008, progress that has been achieved is as follows:

Progress for first slum group:

- 29.3% has already been developed.
- 55.1% currently under development.
- 15.6% pending development.

Progress for second slum group:

- 65% of the slum areas have already been removed.
- 20% are under constructional removal.
- 15% areas have not been commenced.

4. Discussion

There is a need for a positive youth development that should provide a comprehensive framework outlining the various forms of support extended to young people in need to foster further human and social development. The main goal is to transform communities into places where youth can contribute meaningfully to the development and improvement of society. This will empower the targeted groups to become productive Egyptian citizens for the betterment of the community, economy, and country. Progress and development are contingent upon resolving significant environmental problems and raising the overall quality of life for youth in Egypt.

The inclusive proposed framework shown in Fig. 2 should strive to achieve environmental, financial, and social sustainability. The UN Millennium Declaration, development goals and aspirations of the initial slogans, appeared since the Egyptian first Revolution, can be attained through the successful cooperative efforts of the government, intermediate bodies (NGOs) and the youth community. The aim of this framework is getting benefit to land use, endorsing a productive workforce, resolving pertinent environmental issues. Resources and potentials, should be defined. Accordingly, it helps to increase production and decrease unemployment rates, while reducing environmental pollution emissions.

4.1. Proposed framework

According to the United Nations Inter-Agency Network on Youth Development, as a first step to strengthen and support cooperation to promote youth development, a viable and tangible framework needs to be adopted and implemented by the national government, intermediate agencies, and the local community [17].

A framework for development should be proposed to include the essential areas, which promote public awareness, the mobilization and engagement of Egyptian youth, and the empowerment of youth through intercultural understanding. In each of these areas, a collaborative partnership among the youth populace is considered fundamental. The progress achieved during the first year in each of these areas will lay the foundation for further work regarding youth development, including the implementation of the World Program of Action for Youth (WPAY), where the United Nations could further strengthen its commitment to young people.

According to [24], the UN action proposal for Employment highlights the following points:

- Facilitate employment opportunities for specific groups of young people.
- Enhance voluntary community services involving youth.

The UN action proposal for Hunger and Poverty highlights the following points:

- Promote skill training for income generation by young people.
- Provide government land grants for young people.
- Increase cooperation between urban and rural areas [24].

Regarding the improvement of environmental conditions, the UN encourages the spread of environmentally sound technologies in developing countries and in countries in transition that incorporate youth training programs for the betterment of protecting and conserving the environment [16].

As shown in Fig. 2, each party in the society, either the government, or the intermediate bodies or the youth, has a significant role in the development process. If the potentials and resources were demonstrated efficiently, many problems would be easily resolved.

The government controls the undeveloped areas with all the related legalizations and resources.

Enhancing urbanization for undeveloped desert areas in Egypt, from the government side, is an important and positive transformation, that leads to economic growth and productive labor force. If the government encouraged a self-housing strategy for the youth, utilizing the straw bale construction technologies, this would contribute to environmental sustainability through more efficient use of resources.

The intermediate bodies (as the NGOs) could assist in the youth empowerment, technical guide, and supervision. The youth possess the workforce of the society, where they could built their society by themselves.

The successful implementation of the WPAY's action points supports the proposed framework for the Sustainable Youth Community Development in Egypt under the following development initiatives:

1. Land allocation and infrastructures.
2. Economical materials and resources.
3. Technical assistance.
4. Manpower and skills.

4.2. Land allocation and infrastructures

According to the Global Competitiveness Report 2014–2015, Egypt's rank improved from 41st out of 144 countries in 2009 to 38th in 2014 for cluster development. The improvement is due to recent shift of focus of policy toward supporting existing clusters and establishing new ones [14].

Egypt is divided for administrative purposes into 29 governorates [5]. The youth communities are dispersed throughout each governorate.

As per Peterson [11], the Egyptian state owns the desert land which could be available for urban expansion. The Land allocation has been problematic, characterized by bureaucratic procedures that ignore market incentives and fail to recover the costs of public investment.

Government control has been justified by the need to subsidize land allocations for the low income housing development. However, sale of land for middle-class and upper-class uses at full market value, coupled with transparent cross-subsidization of low-income housing from land profits, seems to be more effective means of meeting social needs than government land allocations that defy the market.

[11]

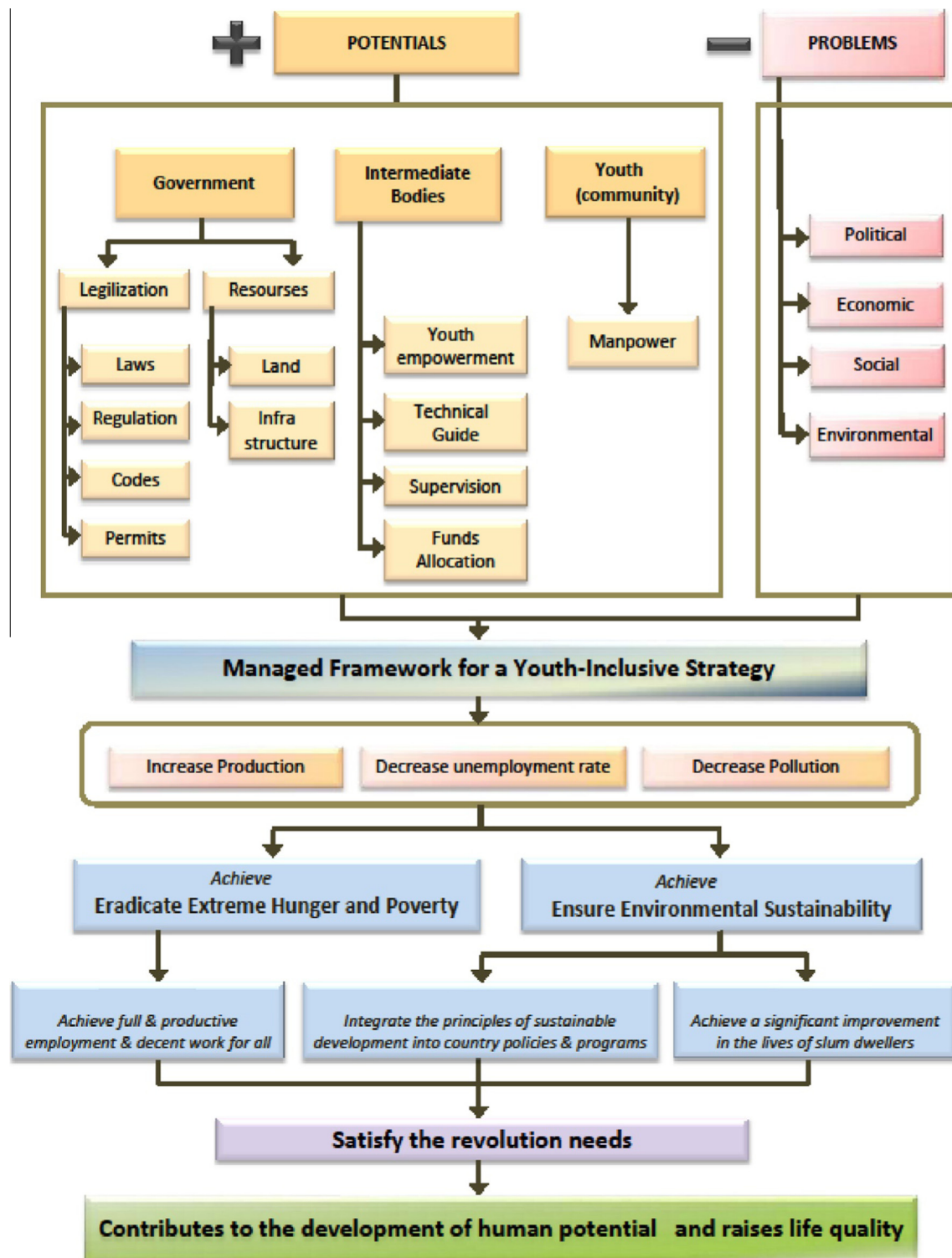


Figure 2 Managed framework for a youth-inclusive strategy.

Accordingly, Each youth community could be subdivided into several residential compounds, distributed throughout all the desert areas of the Egyptian governorates, where an allocated land could be assigned for each family. These lands could be bought from the government serviced with infrastructure with less than the market price, while subsidized from the land

sold to the higher income groups with the full land price. This would provide a margin for cross subsidization of low income housing development and financing of major infrastructure implementations. Therefore, each low income family could have the right to allocated land ownership to become integrated in this new community contributing to productive work force.

4.3. Economical materials and resources

Mounting pollution and problematic waste disposal methods have caused considerable burdens over the past 15 years to Egypt. The phenomenon of burning rice straw has severely affected the environment, which could possibly be resolved, if used effectively as a core building material toward construction of the proposed communities. Straw bale buildings emerged at the end of the 19th century following the introduction of the baling machine in the USA. This form of construction was rediscovered at the end of the 1980s and has become popular in the USA and Canada, often described as the straw bale revival. Straw has always been used in building construction, usually as a binder in mud or earth walls and in cob construction [2].

Straw bales have proved to be very strong, easy to manage building blocks. When bound with two or three strings into rectangular shapes, they can be stacked on top of each other to make walls. Thus, to protect the environment it is necessary to use materials that have a low environmental impact, can easily be recycled, or have been recycled. In addition, the uses of straw bales have proven to be an effective form of insulation, which reduces energy consumption both in materials production and in transportation [25].

The straw bale construction is easily understood by unskilled builders, with minimum supervision by one knowledgeable straw bale guider [10].

4.4. Technical assistance

Egypt's youth unemployment problems emerge, the lack of practical training resulting in shortages of modern and advanced specializations. Accordingly, the private sector complains that Egyptian workers do not meet market requirements based on qualifications and skills [1].

This is an apparent need for representation of individual citizens as a result of the bureaucratic challenges associated with dealing and interacting with the government. The involvement of Non-Governmental Organizations (NGOs) as intermediate bodies to bridge the gap between the government and the youth community that can further empower youth, provides technical guidance, supervises and allocates funding. Refer to Fig. 3.

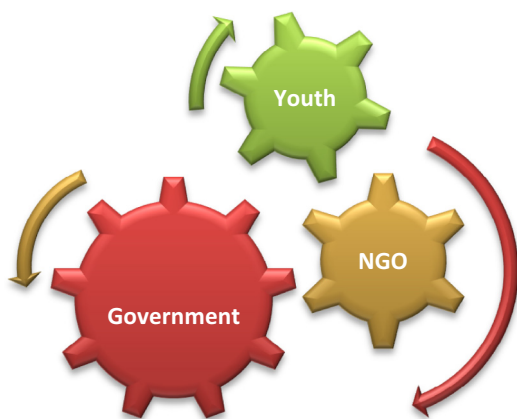


Figure 3 Interactions between Government, youth and NGOs.

According to Connell and Gambone [6], NGOs serve as technical assistance providers:

Need to Assess their strengths in providing assistance to communities across all the frameworks' elements (mobilizing and planning, implementing each of the community strategies, identifying implementation gaps, assessing progress through evaluation, etc.) and disseminate that information to communities.

Use these organizational assessments to create strategic and cooperative partnerships with complementary intermediaries in order to offer the full range of assistance that communities will need to take this approach to supporting their youth.

[6]

4.5. Manpower and skills

Empowerment has been defined as "the process by which people, organizations and communities gain mastery over their lives" [12]. For enhancing the youth and building up their sense of belonging for the place, they should feel that the community is their own and they shared in building it themselves. This could be achieved through a self-help housing approach. The key component of most international self-help programs aimed to involve the resident as employees in job training and other functions. The ideology of the self-help is that the resident contributes through the construction of their house and the building of the greater community [13].

Empowerment is required at every level, ranging from upgrading curriculum and employee training conducive to a productive and efficient workforce. Such options need to be implemented in order to promote effective technical and vocational education and training as a viable option to reduce unemployed youth. Resolving labor market failures is a shared responsibility between youth, employers, Non-Governmental organizations (NGOs), and the various levels of government within Egypt. Closer links between training-education providers and the private sector are essential in addressing and overcoming these challenges.

According to Soliman [15], self-help housing in Egypt is justified as follows:

The Egyptian experience showed that the involvement of local people in the housing process became a major theme for providing a reasonable shelter, formally or informally, for low-income groups. However, self-build housing appears the most appropriate methods for the urban poor to house themselves. An important area for innovation and program design in Egypt is the various forms of "self-build housing solutions." "Low-cost land and self-build housing solutions" consist of wide range of options that compose the steps of the progressive housing process.

[15]

For self-help housing, straw bales hold potential savings in terms of labor rather than materials. The advantage with straw bale construction is that it greatly favors the self-help housing through its relative ease of construction and affordability. Therefore, owners and their families can participate in the construction process, while reducing labor costs [25].

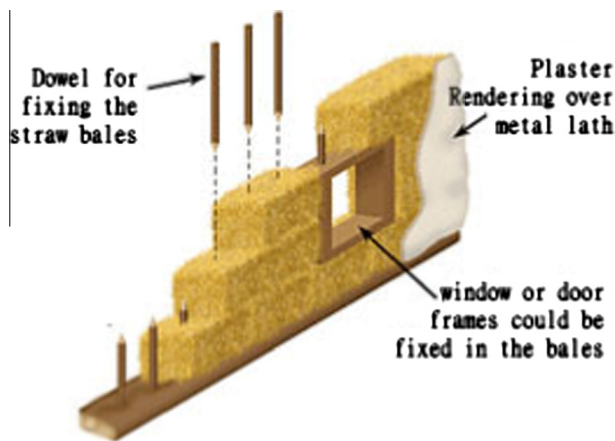


Figure 4 Construction detail for the straw bale wall.

4.6. Construction methodology

Straw bale building technique is rapidly gaining popularity. Straw bales can be used either as load bearing walls or infill with other material as a skeleton. In either case the straw bales are stacked together as large bricks and secured to each other with wooden stakes. As shown in Fig. 4, these stakes can be hammered through the bales or tied in pairs on opposite sides of the wall. When laying bales on a wall the straws should run horizontally, not vertically; otherwise, the bales will tend to sink into each other [22]. After assembling the bales, walls should most commonly be rendered. Rendering can be made from a mix of sand and lime, over a metal lath layer that could be tied to the straw bale wall.

5. Conclusion

Egypt articulated a variety of political, social and economic grievances that are deeply interlinked. Despite the fact that Egypt is currently in a stage of transition, adjusting from social upheavals and recent political reforms, the country possesses significant resources and considerable potential for the future. Each party in the society (either the government, or the intermediate bodies or the youth) has a significant role, in which, if demonstrated efficiently, many problems, would be easily solved.

The government role is clear in enhancing urbanization for undeveloped desert areas in Egypt. This is an important and positive transformation, that would lead to economic growth and productive labor force. Encouraging the self-help housing strategy, by using the straw bales construction, can contribute to environmental sustainability through more efficient use of resources. The intermediate bodies (as the NGOs) could assist in the youth empowerment, technical guide, and supervision, while the youth possess the workforce of the society.

The proposed framework, achieves synergy between government and youth community in Egypt. It is considered an organized approach toward achieving quality environmental, financial and social sustainability as follows:

• Environmental Sustainability

Self-help housing utilizes straw bales as primary building units, instead of burning rice straw, which leads to environmental pollution.

• Financial Sustainability

The locally available, low-cost material (straw bales) used in the building process enables youth on low incomes to provide themselves with good quality homes that reduces the building material costs.

• Social Sustainability

Based on principles of self-help approach, all decisions made throughout these programs should contribute to the development of communities. A natural consequence of community living is social integration. The sharing of communal facilities promotes contact, cooperation and integration between people of varying education or skills.

Finally, it is evident that the scope of this article establishes the use of vast potential resources. Hence, some of the major goals and targets related to the United Nation's development goals could be achieved in order to satisfy the demands of the 2011 Egyptian first Revolution.

The proposed framework contributes to the development of human potential and raises the quality of life in Egypt as a prominent country in the region, which serves as an example for other developing nations to follow.

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Appendix A

The Millennium Development Goals (MDGs):

- MDG1: Eradicating extreme poverty and hunger,
- MDG2: Achieving universal primary education,
- MDG3: Promoting gender equality and empowering women,
- MDG4: Reducing child mortality rates,
- MDG5: Improving maternal health,
- MDG6: Combating HIV/AIDS, malaria, and other diseases,
- MDG7: Ensuring environmental sustainability, and Developing a global partnership for development.

The Sustainable Development Goals (SDGs):

- SDG 1: No poverty,
- SDG 2: Zero hunger,
- SDG 3: Good health and well-being,
- SDG 4: Quality education,
- SDG 5: Gender equality,

SDG 6: Clean water and sanitation,
 SDG 7: Affordable and clean energy,
 SDG 8: Decent work and economic growth,
 SDG 9: Industry, innovation, infrastructure,
 SDG 10: Reduced inequalities,
 SDG 11: Sustainable cities and communities,
 SDG 12: Responsible consumption, production,
 SDG 13: Climate action,
 SDG 14: Life below water,
 SDG 15: Life on land,
 SDG 16: Peace, justice and strong institutions,
 SDG 17: Partnerships for the goals.

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