

# GREEN GROWTH INITIATIVE WILL LEAD TOWARD SUSTAINABLE DEVELOPMENT OF NATURAL RESOURCES IN PAKISTAN: AN INVESTIGATION OF “BILLION TREE TSUNAMI AFFORESTATION PROJECT”

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**ABSTRACT:** Climate change issues and environment degradation put a question on future life. Pakistan's declining forests encourage authorities to pursue Green Growth Initiative for environment development and sustainability. This paper reviews the status of environment degradation in Pakistan and analyzes the BTTAP progress and development in terms of environment sustainability. This study carried through analytical approach using secondary data and it gives an overview of BTTAP journey.

**KEYWORD:** Green Growth Initiative, Billion Tree Tsunami Afforestation Project, Sustainability, Pakistan

## Abbreviation

BTTAP	Billion Tree Tsunami Afforestation Project
FD	Forest Department
Ha	Hectare
MCFT	Million Cubic Feet
KPK	Khyber Pakhtunkhwa
WWF	Pakistan World Wide Fund for Nature

## 1. INTRODUCTION

Pakistan is sailing with those states which have a very few forest area and could be droned by the climate change tsunami. Country past record of 4% forest is replaced by 3% and it was declining day by day due to the massive and destructive use of wood. Hills in the northern areas of Pakistan are known for their long stretches of pine and fir forests, though they have been the target of illegal logging for decades. According to the Forest Department's research and development team, Pakistan's forest density has been reduced by 74 percent. Deforestation caused severe climate conditions as inhibitors are facing earthquakes, land sliding, floods, and soil erosion with abrupt weather conditions.

Pakistan's northwestern province Khyber Pakhtunkhwa which covers country's 40 percent area has taken a progressive step by planning, architecting, starting and implementing Billion Tree Tsunami Afforestation Project (BTTAP) under the flag of Green Growth Initiative [1]. Authorities are trying to plant one billion trees by the end of 2018 which will not only increase forest area but also help the province ecologically, economically and socially by reducing deforestation, creating jobs opportunities and engaging local communities. BTTAP has been commenced since 2015 and it will increase respective province forest area from 20 per cent to 22 per cent in four years [2]. At least 30,000 hectares of extra forests are planting along with the protecting and enhancing the existing one through a progressive afforestation drive through this project.

Paper analyses the core aspects of this projects and answer the following questions:

- What are the main objectives of Billion Tree Tsunami Afforestation Project?
- What is the structure of BTTAP?
- How does BTTAP lead toward environment development and sustainability?
- What will the outcomes of BTTAP?

## 2. BACKGROUND

The Bonn Challenge is a global effort to restore 150 million hectares of the world's deforested and degraded lands by 2020 and 350 hectares by 2030 [3]. On December 15, 2015 at UN climate change conference in Paris, KPK government representatives announced the restoration of 30,000 hectares and pledged to Bonn Challenge [4]. Till 20 April, 2017 there has been almost 70 percent work is completed or under process and at the end of 2018, authorities will complete their pledge [5].

## 3. METHODOLOGY

Paper based on both qualitative and quantitative methods of research using normative approach. It was aimed to use secondary method for data collection. Project documents, management plans, progress reports, plantation records and monitoring reports along with figures and other available data are reviewed to have a clear picture. It also includes newspaper reports, articles and videos.

### Theoretical View

Research use theory of sustainability along with sociological theory. As theories of sustainability attempt to prioritize and integrate social responses to environmental and cultural problems and sociological discuss individual behavior towards society, culture and environment [6]. Paper analyses social response to environment problems, society relationship with nature and their people social engagement. Sustainable development of natural resources discussed as this project didn't focused only on the preservation of existing environment resources especially on forests but also plant a new generation of trees which will be beneficial for future generations.

## 4. BILLION TREE TSUNAMI AFFORESTATION PROJECT

Billion tree tsunami afforestation project gained momentum after March 2015 when provincial government put its efforts in establishing a healthy environment for people. BTTAP is based on three steps, first to grow saplings; second how to ensure their safe transformation and nourishment and last is about the protection of forests [7]. The project had split into two phases, with a total cost of 1.912 million first phase has been implemented during 2014-15, while with a total cost of \$12.4 million phase two is implementing during 2015-2017.

### Nurseries and Saplings

Under this project different kinds of nurseries are installed around the province. According to WWF Pakistan report until August 2015 almost 160 million seedlings were verified and most of them are ready for plantation as well as almost 2000

hectare is afforested. Almost 13000 government and private nurseries are producing saplings, said Malik Amin Aslam, the chairman of the province's Green Growth Initiative [8].

#### Central Model Nurseries

Central Model Nurseries or Departmental nurseries are organized under provincial forest department and divide them into tube nurseries and bare rooted nurseries. KPK has three forest regions and twenty eight divisions and each forest division was assigned to establish at least one central model nursery on five hectares for raising both tube and bare-rooted seedlings of suitable species for plantations. According to the BTTAP/ FD records 238.71 hectare of central model nurseries had been established by August 2015.



**Figure 1 (Central Model Nursery, Harripur)**

Source: Thomson Reuters Foundation

#### Private Forest Nurseries

A revolutionary step was taken for establishing so called "Youth Nurseries" in private sector to engage and empower youth and women. 20,000-25,000 plants can be grow in one nursery which has secure buy-back agreement with the Forest Department generating an income of \$ 120 to \$200 per month [9]. BTTAP engaged its local youth and women and established 2756 private nurseries with 66 million seedlings until 2016.

#### Planting of fast growing tree species

A total of 6000 hector area was targeted in 2015 to be planted with multipurpose fast growing tree species on communal and private waste lands preferably situated nearby the natural forests. Major objectives of the activity are to meet the firewood and timber demand and decrease pressure on the surrounding natural forest. As past record shows that local communities used to destroy forests for the sake of firewood so such initiative will save the future forests.



**Figure 2 (Private Bare Rooted Nursery, Malakand)**

Source: Captured by author

**Table 1 Project Detail**

Category	Quantity
Central Model Nurseries (Seedling)	50 Million
Private Nurseries(Number)	2700
Fast growing trees(ha)	6000
Along Roads (ha)	500

Source: WWF Pakistan Report 2016

#### Saplings transformation

##### Planting along roads, canals and railway tracks

For this plantation, a 500 hector area along motorways, roads, canals and railways tracks is selected and also protected with fencing.

Around 500 million saplings transformation is carried through private sector under Forest Department by creating eco-pruners [10]. This will also ensure survival of planted forests through performance based payments spread over a three-year period as the saplings turn into trees.

#### Forest Protection

Before "Natural Growth Initiative" timber mafia was too strong in KPK, political affiliations, officers' corruption backed them to destroy the lungs of nation. Provincial authorities confiscated 0.122 million cubic feet (mcft) and claimed fines of \$ 75 million [11]. 242 illegal saw units were dismantled; 0.376 million cft of illegally-cut timber held for confiscation and 24.2 million cft held for third party verification. Seven officers charged and proceeded against along with 50 junior staff. Under BTTAP, local communities being custodians have been extended responsibility for 'forest closure' to ensure protection and enrichment of the forests. As per partnership agreement with the government, they are trained and hired as local Forest Guards. This initiative is providing jobs to local people and ensures responsible protection of forests.

## 5. CONCLUSION

Afforestation project based on concrete observation and constructed planning. It leads the development in environment sector through complete change in the mind set of community as well as government while treating forests as "Natural Capital" rather than revenue entities. While approaching Youth and Women Nurseries and Forest Guards, authorities aimed to achieve sustainable development through a soft approach of sociability.

BTTAP proves a new hope by rehabilitating and improving the existing ecosystem through environment degradation. Project has a unique attribute for having a strong monitoring and evaluation process through WWF Pakistan this will ensure its transparency and development. By preservation of old species as firewood through planting of fast growing species, hiring forest guards and planting new species of plants which will increase the green area and engaging local communities through private nurseries this project will achieve the goal of sustainable development of natural resources. From March 2015 to April 2017, initial developments declare that it is win-win project for provincial government, Pakistan and the world. For KPK, it is enhancing forest cover while generating green jobs for the youth. For Pakistan, this project will help in term of enhancing water availability, reduction of soil erosion and increase of resilience against climate induced floods. For the world, this project will sequester carbon and contribute towards global climate mitigation.

**6. REFERENCE**

1. Max Bearak. Pakistan's plan for tackling deforestation: A billion trees, *The Washington Post*. Retrieved from [https://www.washingtonpost.com/news/worldviews/wp](https://www.washingtonpost.com/news/worldviews/wp/https://www.washingtonpost.com/news/worldviews/wp) (May 18, 2016).
2. Third Party Monitoring Report of Billion tree Tsunami Afforestation Project in Khyber Pakhtunkhwa, WWF-Pakistan, January, 2016.
3. <http://www.bonnchallenge.org>
4. KPK Launches Billion-tree Drive—A Contribution to Global Forestation Campaign, International Union for Conservation of Nature. Retrieved from <https://www.iucn.org/content/kpk-launches-billion-tree-drive-%E2%80%93-contribution-global-forestation-campaign> (June 5, 2015).
5. Third Party Monitoring Report of Billion Tree Tsunami Afforestation Project in Khyber Pakhtunkhwa, WWF-Pakistan.
6. Willis Jenkins. *Berkshire Encyclopedia of Sustainability: The Spirit of Sustainability*. Berkshire Publishing Group LCC.
7. The Billion Tree Tsunami, *The Express Tribune*. Retrieved from <http://tribune.com.pk/story/845800/the-billion-tree-tsunami/>
8. Pakistan's 'Billion Tree Tsunami' takes hold, *The third pole.net*. Retrieved from <https://www.thethirdpole.net/pakistans-billion-tree-tsunami-takes-hold/> (May 11, 2106).
9. KP's 'billion tree tsunami' successfully surging towards its goal, *Dawn News*. Retrieved from <https://www.dawn.com/news/1321058> (March 17, 2017).
10. Pakistan's Billion Tree Tsunami Gains Momentum, *Dawn News*. Retrieved from <https://www.dawn.com/news/1258918/pakistans-billion-tree-tsunami-gains-momentum> (May 17, 2016).
11. Third Party Monitoring Report of Billion Tree Tsunami Afforestation Project in Khyber Pakhtunkhwa, WWF-Pakistan.