

# Malik Amin Aslam

Former Environment Minister  
Pakistan

Nothing is  
more powerful  
than an idea  
whose time has  
come.

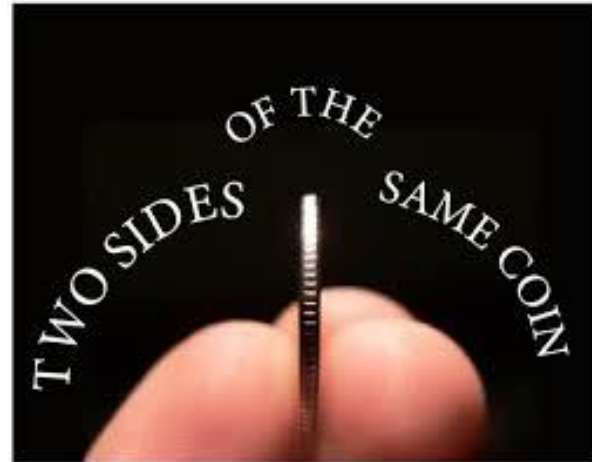
*Victor Hugo*

# Valuing the “Environment”

Ecosystems are “Capital Assets”

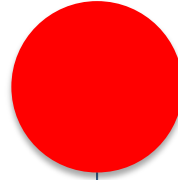
- Sustain the “Business of Life”:

- Natural Capital Valuation
- Eco-compensation
- Value for Ecosystem services
- Green Budgeting
- Climate Costing

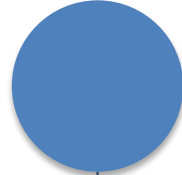


Costing Environment Degradation –  
**Triggers** Policy Making

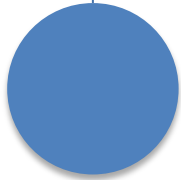
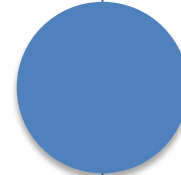
Water  
Pollution  
Study



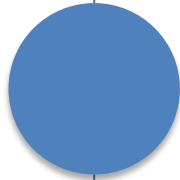
**Natural  
CBA  
Done**



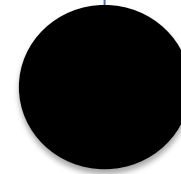
All  
Aquifers  
Polluted



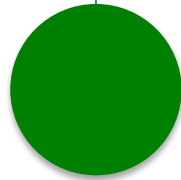
**US\$ 14 Million**  
– Cost Every  
Year



**US\$ 8 Million –**  
Remedial  
Solution



Concern  
**BUT NO  
Action**

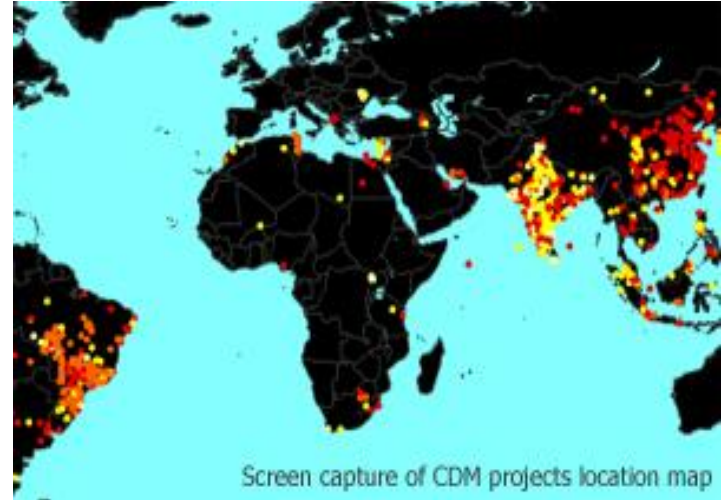


**Immediate Release of  
Funds** and initiating of  
Pakistan's CDWA Project

# Costing Environmental Opportunities

## - Shifts National Policy

- India (2000) was opposed to CDM – “Making money off pollution”
- Indian FCCI did a study of the potential economic opportunity of CDM – U\$ 1 Billion FDI possible !
- The valuation study shifted National Policy
- Today – India a “Hot Spot” on the CDM Map





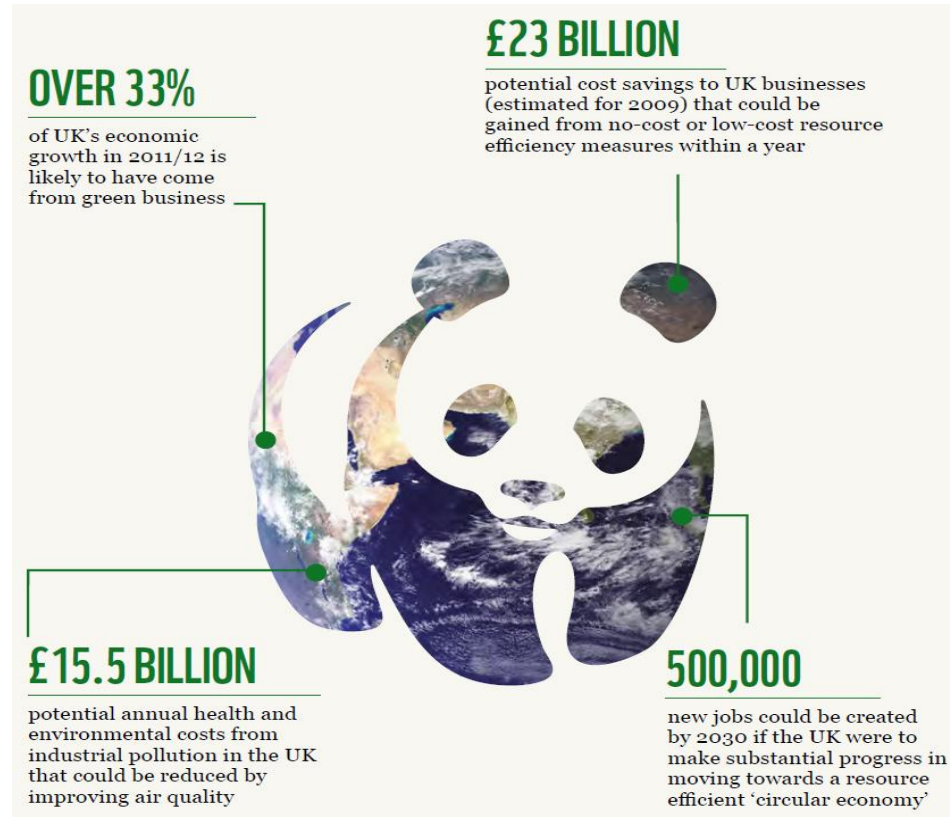
# True Ecological Valuation - **Catalyst** for a Global Alliance ?

- Mangroves – Undervalued natural resource
- Tsunami triggers– Mangroves for the Future
- One of the findings is the latent economic value of Mangroves :
  - Natural Hazard protection and resilience
  - Livelihood potential
  - Carbon sequestration (15 times)
  - Fisheries
  - Cultural / Eco-tourism value
- Few countries with mangroves BUT, through **True Economic Valuation (TEV)**, now realizing that this natural resource is an **economic asset** eg. Thailand – US\$ 27000-35000/hectare
- Catalysed by this common conservation interest – Initial steps for formation of the “**Global Mangrove Alliance**” (Vietnam MFF)



# Green Budgeting

## – driving economic priorities



# Valuing Nature

## - Influencing Business Conscience

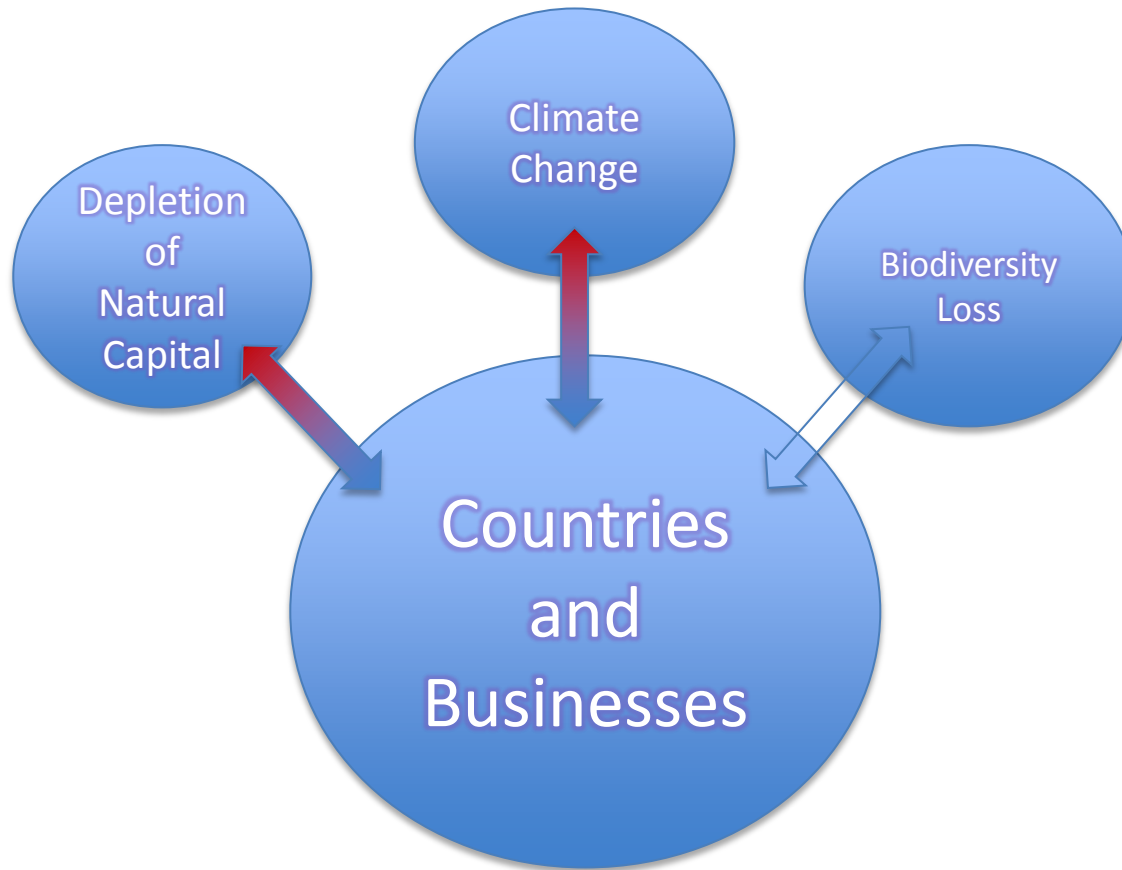


• “The conclusion we reached was inescapable – No amount of profit or share price could justify the degradation of such in-describable beauty”

Michael Kowalski

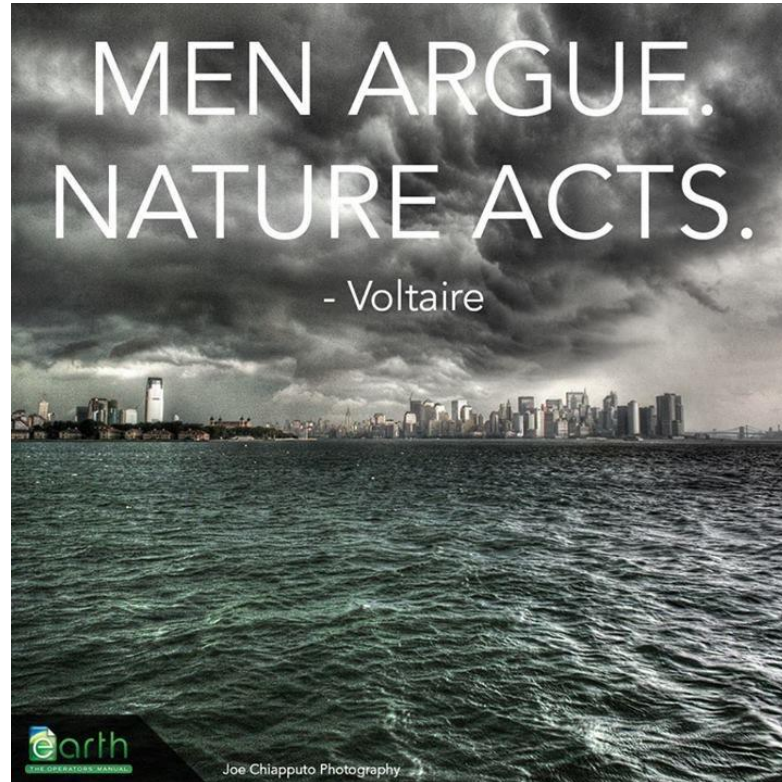
CM of Tiffany on Pebble Mines (Bristol Bay – Alaska)





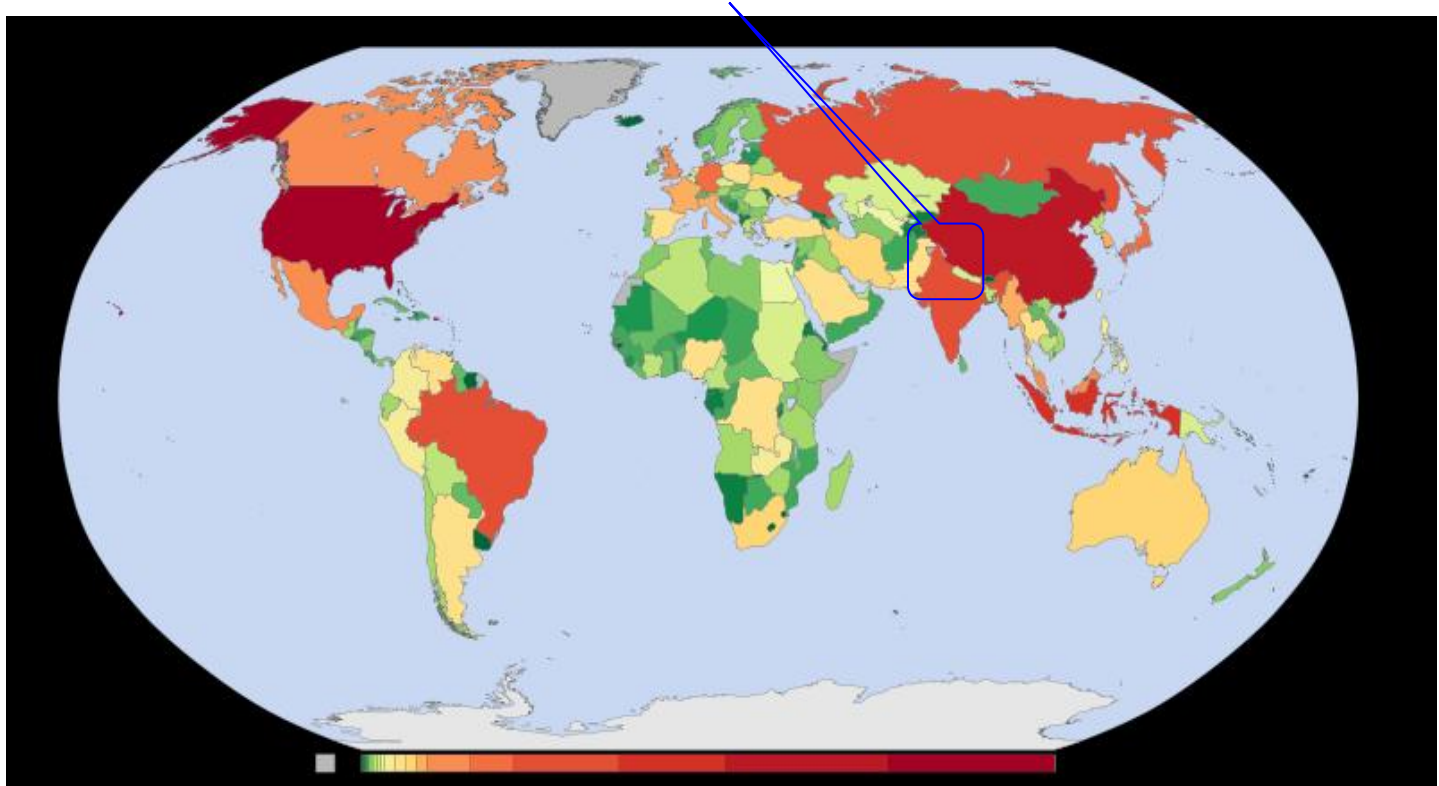
Dependency and Influence

The **stark reality** of Climate Change.....  
No longer have the **luxury of time**



# Pakistan – on the climate front ?

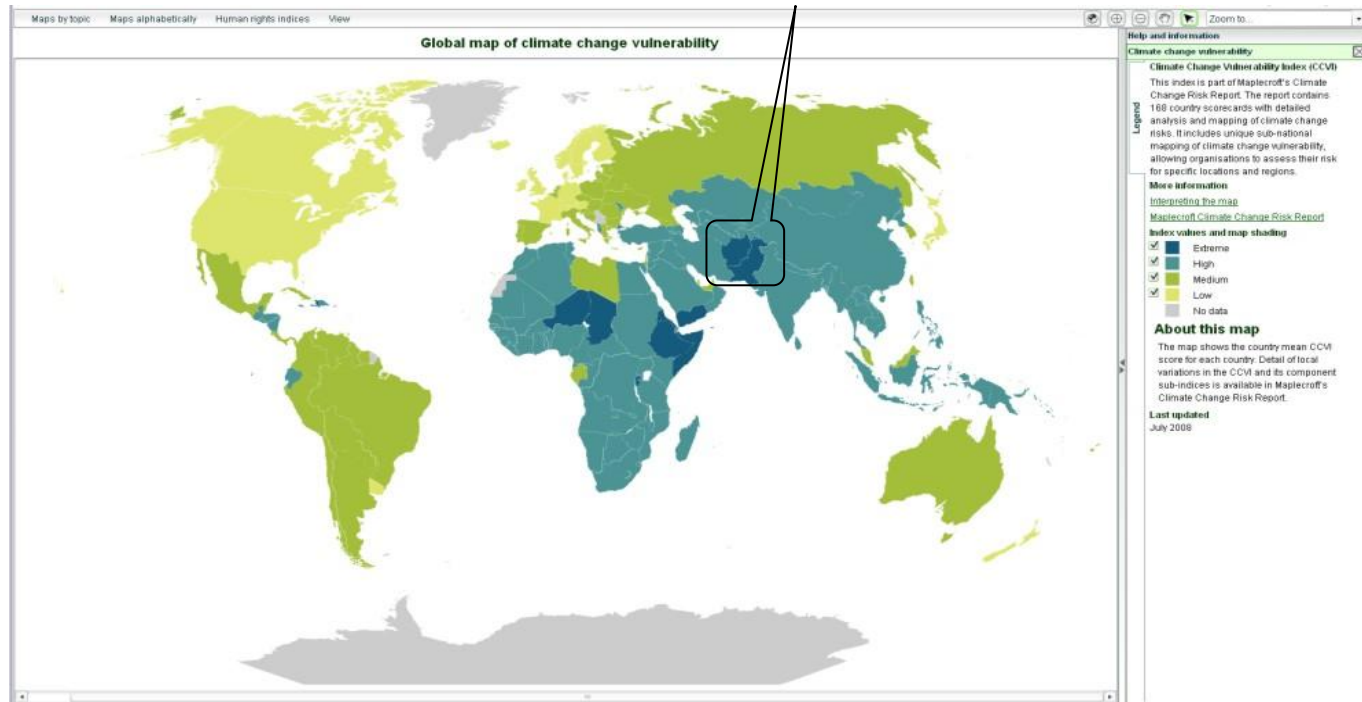
Less than 0.5% of Global GHG emissions



# Pakistan – on the climate front?

One of the **worst victims** of climate change  
& best examples of **climate injustice**

Maplecroft vulnerability index places us in **High/Extreme** category /Columbia Univ indx does the same (<http://ciesin.columbia.edu/data/climate>)



# Global Climate Risk Index – 2010 (German Watch)

Ran k	Country	CRI Score	Death Toll	Deaths per 100000 inhabitant s	Absolute Losses (M \$ PPP)	Losses per unit GDP in %	HDI
<b>1</b>	<b>Pakistan</b>	<b>3.5</b>	<b>1891</b>	<b>1.1</b>	<b>25316</b>	<b>5.42</b>	<b>145</b>
2	Guatemala	6.33	229	1.59	1969	2.80	131
3	Colombia	8.0	320	0.70	7544	1.73	87
4	Russia	11.0	56165	39.3	5537	0.25	66
5	Honduras	14.67	139	1.73	220	0.65	121
6	Oman	17	24	0.81	1314	1.73	89
7	Poland	17.83	151	0.40	4745	0.66	39
8	Portugal	19.67	47	0.44	1749	0.71	41
9	China	23.50	2889	0.22	33395	0.33	101
10	Tajikistan	24.17	27	0.35	262	1.77	127

Coming with a **price tag** !  
.....**Valuing** it triggered national policy

Method	Time period	Cost of adaptation per annum
Actual (2010)	One year (2010)	9.7++
As a percent of GDP	2010-2050	10.71
Per Capita Basis	2010-2050	7.12 to 14.0
Disaster Modeling (Floods only * 3)	2010-2050	6.09 to 11.3

- Adaptation to climate change is going to be a **high value figure** in the future

- (US\$ 6-14 bn/yr)

# National response... post 2010

The quantum of the climate challenge clearly dawned upon policy makers  
...report + floods :

- Ministry of Climate Change
- CC Experts Core Committee
- National Policy on Climate Change
- Judicial Commission on Climate Change

The climate costing study – integral to all !

# The Opportunity!

## •Think Differently :

—How to Adapt ?

- Climate Compatible development – Integrate changing nature !
- Avoid 60% infrastructure costs

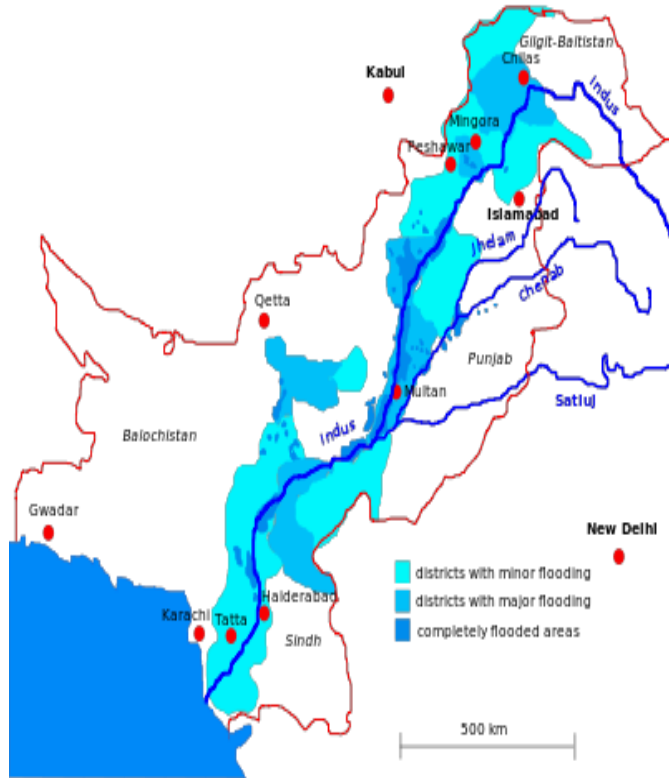
—How to Mitigate ?

- Low-Carbon Development
- Win-Win-Win opportunities
- Energy as well as Forestry sectors



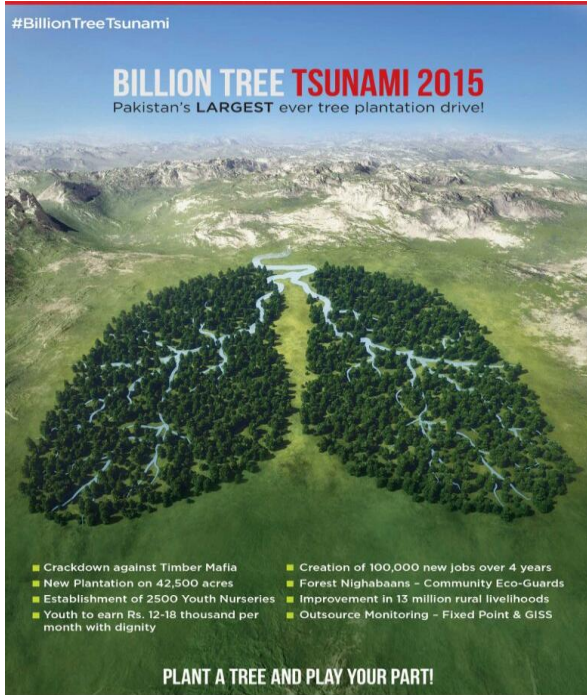


# Adapt – Nature recharges “Natural Capital”



- 2010
  - 25% country inundated
  - 8 Tarbella Dams lost
- Mega Floods –unavoidable
- Adapting to situation
- Use floods to **recharge** valued ecosystem services
  - **Store** excess water in reservoirs
  - **Recharge** Aquifers
  - **Replenish** Wetlands

# Mitigate - By building “Natural Capital”



- Billion trees in 5 years  
—(New + Enrichment)
- Afforestation-30000 ha/year
- Enrichment-27000 ha/year
- Enlisted under the “Bonn Challenge”



Environment Department  
Government of  
Khyber Pakhtunkhwa



## Nature pays back - “Green Jobs”

- Thousands of Jobs for youth in 4 years
- 30000 Individuals - trained as “eco-preneurs”
  - Youth Nurseries – 2500 to earn 12-18000 pm with dignity
  - Outsources Growth – 3 yearly payments
  - Outsource Monitoring – Fixed point and GISS
  - Forest “Nighabaans” – Community eco-guards
  - Adopt a “Forest” program launched
- Livelihood of 13 million rural population to be improved

# Nature Pays Back..... **Hope !**

#BillionTreeTsunami

## BILLION TREE TSUNAMI 2015

Pakistan's LARGEST ever tree plantation drive!

### PLANT A TREE - PLANT HAPPINESS

- 2500 new youth nurseries established for purchase of trees by the government
- 3.4 million saplings provided to orchards
- Appointment of 'Nigehbans' - forest caretakers selected from local villages to provide sources of income for thousands
- 375 acres of barren land being made arable
- Third-party monitoring to ensure transparency
- Creation of 100,000 new jobs over 4 years
- Implementation of REDD+ to guard against the cutting of trees and provide countless opportunities for income

"I, Muhammad Riasat, from Village Kohmal Makhnial, have been running a youth nursery for the Government of Khyber Pakhtunkhwa, completely free of cost. This has provided me with a steady stream of honest income that I never had before".

Environment Department  
Government of Khyber Pakhtunkhwa

InfoKPGovt @InfoKPGovt www.infokhyberpakhtunkhwa.gov.pk Send KP to 8333

GREENGROWTH  
Khyber Pakhtunkhwa

Billion Tree  
Tsunami 2015

## Nature Pays Back - Carbon Value

Total Forest Area (ha)	Total C – <b>Standing Stock</b> (MT)	Annual C – Sequestration from <b>Afforestation</b> (MT)	Total Annual Emissions from <b>Deforestation</b> and <b>Degradation</b> (MT)	Potential Benefit @ U\$5/MT
1,508,604	148.00	7.78	6.61	<b>U\$ 805 Million</b>

HUGE potential that can be capitalized

# WIN-WIN



- **Province of KPK Wins**
  - Enhance productivity of forests
  - Create economic activity
  - Green jobs
- **Pakistan Wins**
  - Enhance water availability
  - Reduce soil erosion and water erosion
  - Increase protection against floods
- **The World Wins**
  - Carbon sequestration
  - Global Warming Mitigation

Value in Preserving Nature  
Cost to be paid if this not done

Value the environment...**BUT** be cautious !



*'Of course, now we've put a value  
on the environment we can start  
selling it.'*