



## Annual Report 2012

**COAM**  
Conservation Organisation  
for Afghanistan Mountains



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**COAM** was founded in 2009; it is a fully Afghan owned and Afghan managed local non-profit NGO with an overall goal of achieving poverty alleviation and environmental conservation and rehabilitation in the Bamyán region through promoting and facilitating sustainable community based development and natural resources management.



COAM's approach is based upon community participation; we see our role as facilitators; providing training, building capacity, technical and logistical support to local communities to implement watershed and livelihoods projects in the Central Highlands of Afghanistan. The COAM slogan is: **Protect, Connect, Support.**

## VISION

COAM envisions a prosperous Afghanistan with a society possessing an ethic of stewardship and responsibility towards nature.

By 2050 Afghanistan will have:

- Conserved biodiversity and the natural processes that sustain it in the Global 200 Ecoregions within Afghanistan
- Achieved a 'no net loss of biodiversity' ethos to economic development.
- Established social and economic development patterns that assure the sustainable and equitable provision of natural goods and services, improving livelihoods and quality of life for current and future generations
- Eliminated or mitigated critical threats to species, habitats, and ecological processes that derive from climate change, over exploitation of resources, unsustainable consumption, and pollution

## MISSION

COAM's Mission is to stop the degradation of Afghanistan's natural environment, and to build a future in which people live in harmony with nature by:

- Conserving biological diversity
- Ensuring the sustainable use of renewable natural resources
- Reducing pollution and wasteful consumption
- Securing sustainable livelihoods

## GOAL

By 2015 COAM shall conserve at least 1 priority landscape within the Global 200 Ecoregions by:

- Reducing threats to species, habitat and ecological processes
- Improving the livelihoods of local people

# A note from the Director



Dear Friends,

2012 has been a great second full year in operations for COAM. When I took this position at the end of 2011 I knew it was a really great opportunity but I wasn't sure what the road ahead would look like. It has been so interesting and exciting however yes in some areas bumpy, like most roads in Afghanistan! I feel very proud of what the small COAM team has achieved so far on a small budget and a lot of hard work.

Working in Afghanistan presents many challenges, insecurity and uncertainty continue. My colleague has this saying; "In Afghanistan there is a lot of problems but we must only look for solutions". I think of this daily when things don't always go as I expect. Our goal is to find solutions to the struggles of Afghan peoples lives through improving mother natures ability to provide for her people, then we will look forward to a sustainable future.

Finally, I would like to say a few words of thanks. Thank you to our supporters, the donors who trust in us to implement worthwhile projects, we really hope to work with you more in the future. Thank you to our partners some of you have been like a big brother to us offering wise words and advice. And I want to especially thank COAM's 'Angels', volunteers who have been supporting us from abroad and on the ground. You have brought experience from other parts of the world and with determination and generosity became part of the COAM family. Amy Jennings, our 'Chief Technical Advisor' has worked tirelessly with us for most of the year and has been a godsend for COAM. Eoin Flinn (Eng.) Mr. Change Angel, faced the coldest month in Bamyan, without heating to help us kick-start our clean cookstove project which is going from strength to strength. Mr. Brian Slade and Richard who all helped us and continue to do so from thier homes. There are many more people supporting out there who are always at the end of an email when we have a question. To all our supporters I thank you for being our partner in change.

Habiba Amiri  
Country Director

If you are interested in helping COAM in this way please visit our Get Involved section on our website.  
[WWW.MYAFGHANMOUNTAINS.ORG](http://WWW.MYAFGHANMOUNTAINS.ORG)

# Leaders in Environmental Action for the future

Thanks to the support of United Nations Environment Programme (UNEP), Centre for Middle Eastern Plants (CMEP) and Bamyan University COAM conducted a 5 day field work training expedition into the mountains of the Koh-e-Baba.

On Saturday 12th May 2012 the 30 participants much exercised in body and brain returned home rewarded with a Certificate in High level Botanical Fieldwork. Four days had been spent between 3000 and 3700m in the alpine and subalpine zones of the Koh-e-Baba Mountains. Taught by Tony Miller, Director of the Centre for Middle Eastern Plants, Edinburgh, and by John Mitchell, Curator of the living collection of alpine plants at the Royal Botanic Garden of Edinburgh. Their certificates testified to their new experience of methodically collecting and recording plants from the kaleidoscope of habitats found in 7 watershed valleys on the north side of the range. They also came away with a new appreciation of how village folk depend on the mountains.

“The idea was to get participants observing their surroundings, understanding the processes that are really affecting the vegetation; you can’t learn this from books. What we really want is for Afghans to be providing this high level training” - Asadullah Hussainy, Field trip coordinator from Conservation Organisation For Afghan Mountains Areas (COAM),

This was a small notch on the belt of the participants but a big step for Afghanistan’s capacity to implement and execute her environmental policies.



Tony Miller & John Mitchell smiling their way through the Koh-e-Baba



*“The last British botanist from The Royal Botanic Garden Edinburgh to explore Afghanistan was Ian Hedge in the early 1970s so it was a great privilege to follow on in his foot steps. RBGE aims are to continue to help with the rebuilding of the future botanists in Afghanistan.”*  
- John Mitchell



This was the first time in forty years that this type of grass-roots intensive field training has taken place in Afghanistan. As a result of this it is planned to offer more biodiversity conservation field training and train the trainer are being developed.

Where do the 26 students who endured sun, snow, blisters and cramped working conditions come into the equation? They returned with a sense of achievement, enthusiasm and the hands on experience which is crucial for the future environmental restoration in Afghanistan.



**Participants of the field work training**



# Women and natural resources



**A** Afghanistan's women contribute enormously to the management of the country's natural resources, and therefore to sustaining both rural and urban livelihoods. They fulfil several roles, from providing agricultural labour, cultivating fruit and rearing livestock, to collecting wood and maintaining the family unit through cooking, cleaning and child care.

Women – especially those living in rural areas such as the Koh-e-Baba often have a particularly deep understanding of local ecosystems stemming from daily practical experience. In this way, they have a vast knowledge about the local environment and may be the first to notice any signs of declining health.

This closeness to nature gives the women of the Koh-e-Baba an essential role to play in protecting their ecosystems and the many services they offer: from protecting biodiversity and habitats, to supplying people with water, food, timber, fertile soils and a sustainable future.

Our first project the women are involved in is the Clean Cookstove and natural regeneration project. This was supported by the Embassy of Finland and the Linda Norgrove Foundation [www.lindanorgrovefoundation.org](http://www.lindanorgrovefoundation.org). We are now in phase two of this project.

This project is a package of interventions aimed to help protect land degradation from fuel cutting, increase food security and potentially save lives, through removing smoke from the kitchen.

Tragically over 2 million people die every year due to smoke inhalation; most of these are women and children.



This is why COAM encouraged the Women and Natural Resources Koh-e-Baba /partnership





Donkey loads of shrub are collected from the mountains for fuel, a big contributing factor to land degradation

Women in Afghanistan are the main users of stoves and with their children spend a large proportion of their life at home. Improved indoor air quality is an important target of this project with women and children benefiting directly. The main collectors of fuel-wood and brush are women and children. Increased efficiency and improved design can directly improve the quality of their lives, reducing time spent in arduous conditions harvesting fuel-wood and shrubs and lessening environmental damage.

The COAM design team has so far developed 4 prototypes:

- a tandoor oven – 70% fuel saving , 90% reduction of smoke
- a bhukari stove – 60% fuel saving , no indoor smoke
- Improved briquettes – 20-40% more efficient burning
- a solar water heater – 100% fuel saving



Finland Embassy

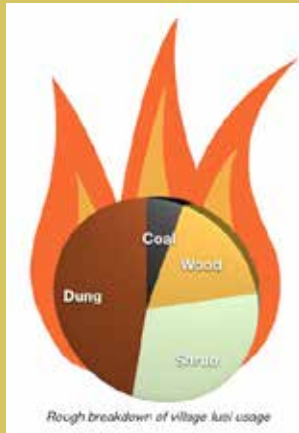
**LINDA NORGROVE FOUNDATION**

[www.lindanorgrovefoundation.org](http://www.lindanorgrovefoundation.org)



# 'Off the Grid' COAM's Clean Cookstove Journey

## Step 1. Understanding users needs



## Step 2. Design



## Step 3. Testing of the 4 prototypes



Alternative fuel testing



Tandoor installed for testing



Solar water heaters



Foladi Bukhari stove being tested by women in their homes

## Step 4. Manufacturing in the COAM design Lab



July 2012

## Step 5. Distribution, installation and training



For full details on our clean cookstoves project check out our video on our website [www.myafghanmountains.org](http://www.myafghanmountains.org)

**35** Million livestock rely on Afghanistan's rangelands

**80%** of Afghans are directly dependant on natural resources for income and sustenance

**4** degrees celsius predicted rise in temperature by the 2060s (from 1970-1999 averages)

**6.7** Million Afghans have been affected by the impacts of disasters and extreme weather events such as drought, earthquakes, disease epidemics, sandstorms and harsh winters (since 1998)

**30%** shrinkage in the larger glaciers in the Pamir and Hindu Kush over the past 50 years

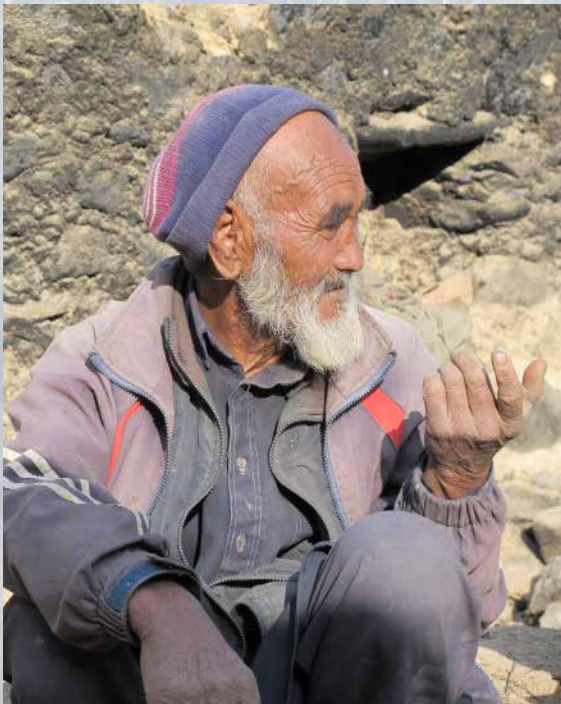
**25+** Million people are living in Afghanistan

**3.6%** Increase in the population of Afghanistan – this projects to a doubling of Afghanistan's population by 2030.

**70,000** Number of trees COAM planted in the Koh-e-Baba in 2012

**30%** Of the population face food insecurity

The source of all the rivers...



**"AFGHANISTAN MAY BE  
WITHOUT GOLD BUT  
NOT WITHOUT SNOW"  
- AFGHAN PROVERB**

Farmer from Sumara who has been helping build the conservation centre

Thanks to the World Food Programme (WFP) COAM, in partnership with UNEP, has been able to implement a landscape level watershed management project that incorporates 7 vulnerable upper catchment villages in the Koh-e-Baba mountains. This project pays workers with food to establish sustainable assets for their communities. These assets included the planting of 70,000 trees, 30,000 of which are fruit trees. The trees were planted in wood-lots in strategic areas, such as along riverbanks and in areas of high soil erosion, for disaster risk alleviation and improved watershed management.

The Koh-e-Baba is one of the most important watersheds in Afghanistan, running East-West across Afghanistan and providing the boundary between Bamyan Province to the north and Wardak Province to the south. The majestic high alpine pastures capture and store water in snow-melt and natural reservoirs and release it over the dry months when it feeds the streams, canals, and rivers of the region.

Water originating in the Koh-e-Baba Mountains flows down into the Harirud, Helmand, Kabul, Kunduz, and Balkh Rivers. The Kunduz and Balkh Rivers in turn feed the Amu Darya River which flows on into the Aral Sea. Therefore the ecological integrity of the Koh-e-Baba is crucial for the daily water supply and livelihoods of thousands of people.

What makes watershed development so attractive is that agricultural productivity and conservation are both highly complementary objectives so long as local people (as well as Government and their development partners), view both with a long term perspective.

For this project we undertook a variety of approaches, all to conserve soil moisture to support crop growth, capturing surface runoff water in small pools or reservoirs, and encouraging water infiltration with check dams in drainage channels. To be sustainable water harvesting requires we need to protect against vegetation loss and erosion that would reduce the water storage capacity of the upper catchment, impacting on the lower valley reaches in terms of less regulated flow, which is bad for irrigation, and at worst, related extremes of drought, flash flooding and landslides.

This project also included indirect measures for watershed management that included alternative livelihood strategies through community nurseries and the building of an eco-conservation house as an education centre and to promote eco-tourism in the future.



# Environmental Education

Environmental education and public awareness is an important tool of COAM's conservation efforts and we incorporate environmental education into all aspects of our projects. The challenge is to emphasise the real time benefits of nature conservation to the local people and explain the dynamics of this. We have been working to publish environmental educational outputs in the form of posters, books and short films that convey these messages and exhibit the important aspects of nature in this region. We hope that these outputs will provide a template for other protected areas in Afghanistan.

Training is taking place in the upper catchment villages about biodiversity and the longer term economic benefits that having a healthy environment can bring.



**Kids from Jawzari village curious of our field work**

## Posters and other outreach materials

In partnership with NEPA, MAIL and UNEP, COAM is developing a series of posters depicting various elements of biodiversity and the environment. We have produced posters on 'Benefits of Biodiversity', 'Environment and Islam', 'Plants of Koh-e-Baba' and 'Biodiversity in Koh-e-Baba; an Overview'. Once printed the posters will be distributed to conservation centres, schools and Mosques. Currently they are being circulated on-line through social network sites and the COAM websites and email. More posters are being developed including 'Birds of Koh-e-Baba', 'Rangeland Conservation', 'Water Conservation' and 'Forestry Management'.



## The Web of Life

The 'Web of Life' or 'String Game' provides an activity which reinforces the main message of COAM's environmental education lesson, which is to illustrate to the students that there are connections between themselves, objects that they encounter in their daily lives (particularly food items), and the natural resources present in their environment.

# Restoring hope on the rangelands



One of the major threats to biodiversity in the Koh-e-Baba is land degradation. The main causes of this? Overgrazing, over-harvesting of shrubs for fuel, and the conversion of natural grasslands to cultivated rain-fed agriculture. The natural physical mountainous topography and climatic patterns of the region (characterised by steep slopes and high levels of winter precipitation) means that the effects of these three activities in mountainous regions are greatly exacerbated. Overgrazing is vicious circle, the more animals the less quality fodder, the less quality the fodder the poorer the condition of the livestock; the poorer the condition of the livestock the more livestock the people need to keep in order to make their livelihoods.

The key to success? Empowerment of the local communities to manage their own resources. COAM and other NGO's are working hard towards community-led efforts to improve grazing management practices, develop alternative livelihoods and strengthen cooperation among local communities, governments and resource managers.

“No one has a greater incentive to manage natural resources sustainably than the local people who depend most on them,” says Asad Asadullah, project manager for COAM.

Seven of the upper catchment communities under the COAM project are collecting over 1000kg of seed for reseedling their rangelands and have by themselves suggested we help them plan areas for grazing rotation i.e. excluding areas of rangeland to allow seasonal regeneration.





Niloufar Bayani

**N**iloufar Bayani, a research assistant with UNEP is working on mapping the biodiversity and ecosystem services of the Koh-e-Baba Mountains in Bamyan. Her work involves collecting all the information available on the region and mapping the biological and socio-economic indicators in order to promote the importance of an ecosystems approach to land use planning. She will also use the TEEB approach by UNEP to assess the economic benefits of ecosystem services to local communities. For example as a pilot study she will measure the cost of flood damage that can be avoided by preserving the soil. We hope to use this information to promote the incorporation of ecosystems and biodiversity in land use planning in Bamyan and at a national level in Afghanistan.

### **Ms. Niloufar Bayani speaks about the TEEB study she has been doing in the Koh-e-Baba.**

#### **Q. What is TEEB?**

**A.** Head spearred by UNEP, The Economics of Ecosystems and Biodiversity (TEEB) is a global initiative to assess the economic cost of ecosystem degradation. The benefits from ecosystems and biodiversity are often invisible and ignored by policy-makers and businesses. By assessing the losses to society from environmental degradation, the TEEB approach can improve decision making by the public and private sector.

#### **Q. What effect might all this have on jobs and livelihoods in Afghanistan?**

**A.** In Afghanistan where 80%of the population relies directly on land for livelihoods, protecting agricultural land and the ecosystem services that support it is crucial. For example regulating ecosystem services reduce the risk from flood and drought to agriculture while the human population relies on biodiversity and ecosystem functions for food, medicine and clean drinking water. The TEEB approach can demonstrate the connection between environmental protection and livelihoods and can provide recommendations for how to prevent future losses. This approach can also help create new jobs and increase income. For example estimating potential economic benefits from eco-tourism in different regions can help policy makers and managers prioritize investment areas where tourism can be successful and can benefit local communities.



**Bumble Bee playing an essential ecosystem service in the Koh-e-Baba - pollinating.**

**Without pollinators the world would simply not survive. More then 80% of the worlds flowering plants require a pollinator to reproduce.**





## Landscape scale approach

Climate change is no longer an abstract danger. Just listen to what the elders say about the increasing droughts and flooding which they don't remember being so prominent in the past. Humans and the environment are not just victims of climate change – they also hold a solution to the problem. If protected and enhanced the wetlands, rangelands and trees of Afghanistan will store massive amounts of carbon contributing to global efforts to sequester carbon and combat global warming – and at a more local level put a stop to the vicious circle of vegetation loss leading to desertification.

COAM in a small way is using the power of nature to help people and places adjust to predicted changes, a series of interventions such as increasing tree cover, promoting the use of clean burning cookstoves, promotion of sustainable land management and diverse livelihoods which helps build community resilience in the face of climate change.



## More than a litter pick.

On June 5th 2012 more than 500 volunteers descended upon Bamyan Bazaar to mark World Environment day. The event was organised by the National Environment Protection Agency (NEPA) in Bamyan. Throngs of men and women marched up and down the street picking up any bit of rubbish in sight. This was more than just a clearing of rubbish from our Bazaar but a powerful statement to the people to be mindful of our environment.



# Trek for Peace

On International Peace day 21st of September 2012, COAM in partnership with UNEP, NEPA and local communities organised a Trek for Peace in the Koh-e-Baba mountains. Over 70 gathered in the village of Jawkar to participate on the trek.

The diversity of participants ranged from programme managers of UN agencies, government officials, Shura heads, staff of local organisations, local school teachers, farmers, scientists, children and their parents meant there were many engaging conversations and discussion to be had. Despite the coloured backgrounds, everyone there held a strong wish in their heart for peace in Afghanistan. Trekking in nature together is a skilful way of bridging gaps and strengthening partnerships for sustainable natural resource management and peace building. After an hour of trekking to the ailaq (summer grazing shelter), everyone shared a healthy lunch and tea and listened to students singing songs for Peace Day. "Oh bird of peace," sang girls from a local orphanage. "We are the victims of war. Please tell the warriors: please do not make any more children orphans".



# PROTECT CONNECT SUPPORT



**To learn more about COAM's work visit  
[myafghanmountains.org](http://myafghanmountains.org).**

**CONSERVATION ORGANISATION FOR  
AFGHAN MOUNTAIN AREAS**

**Airport road**

**Bamyan Centre**

**Central Afghansitan**

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