

# SOME ENCOUNTERS WITH FORESTRY FAILURES AND WHAT I HAVE LEARNED FROM THEM



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# INTRODUCTION

- **There is nothing that will be perfect and failures/ set backs/ pains are an integral part of successes.**
- **Even perfectly designed products fail due to a variety of factors – either due to faulty design, wear and tear over time or emergence of better products.**
- **Evolution of species and ecosystems is an outcome of failures and a process of continuous adaptation. Nature continuously adapts and adjusts, and what is perfect for one context will not be perfect when the context changes.**
- **Forestry deals with complex interactions between human and natural systems and hence the chances of outcomes that are quite different - including so called failures - from what is intended are very high.**



# FORESTRY INTERVENTIONS

- ❑ We have witnessed a wide array of interventions in forestry aimed to alter the flow of goods and services.
- ❑ In fact almost our entire careers have been focused on making one or the other interventions. These could be dealing directly or indirectly with:
  - ❖ Technical aspects of production of goods and services – Timber, woodfuel, non-wood forest products, environmental services and so on.
  - ❖ Policy, legal and institutional interventions.
- ❑ These are at different spatial scales : **local, national or global.**
- ❑ Very few of us can say that the interventions always resulted in desired outcomes. On the whole very few of the interventions are “evidence-based”.



# SOME EXAMPLES

- 1. Arresting forest encroachment.**
- 2. Industrial plantations for pulp and paper production ( and its new version – Jatropha plantations for biodiesel).**
- 3. Product development based on traditional knowledge.**
- 4. Hand-made paper production in Nepal**

# PREVENTING FOREST ENCROACHMENTS

- My first encounter with failure was about 42 years back when I started working as Divisional Forest Officer in the Indian state of Kerala.**
- The socio-economic conditions were precarious with acute landlessness in a predominantly agrarian economy. This led to large scale encroachments. Periodic regularisation of encroachments by successive governments led to further encroachments.**
- The forest division I was in charge had about close to 5000 ha of forests that have been under occupation.**
- As a young forester fresh from Dehra Dun, the only option that I knew was to use force. Community forestry and participatory approaches were not in the vocabulary of foresters.**
- We managed to mobilise a fairly large police force and embarked on a major eviction programme. Essentially this involved the use of brutal force**

# PREVENTING FOREST ENCROACHMENTS

- As and when the squatters were evicted and the area was brought under the control of the Forest Department, it was planted with teak.**
- Half way through the eviction process, it became a serious political issue, especially as winning that constituency was critical to the survival of the ruling party. Agitation and marches by evicted farmers created an explosive situation, inviting political intervention .**
- One fine morning the police force that supported our eviction efforts was withdrawn based on orders from the higher ups and that was the end of efforts to stop evictions.**
- Evidently there was little option left for us. And my naivety had to face the harsh reality that forestry is not about technical and legal aspects, but is more determined by political realities.**

# PREVENTING FOREST ENCROACHMENTS

- But what happened subsequently?**
- What succeeded and what failed?**
- And why?**

# INDUSTRIAL PLANTATIONS IN KERALA

- ❑ **The 1970s witnessed a major paradigm shift in forestry favouring large scale industrial plantations.**
- ❑ **Shift from natural regeneration and long rotation hardwood plantations to short rotation fast growing species, especially Eucalypts and Tropical pines.**
- ❑ **Governments under pressure to provide raw material to the pulp and paper industry.**
- ❑ **Some initial pilot plantations of Eucalyptus provided high yields.**
- ❑ **This led to a very rapid expansion of short rotation plantations on a large scale and in Kerala a special Industrial Circle was established to clear natural forests and plant the area with Eucalyptus tereticornis.**
- ❑ **While growth in the early years was quite satisfactory, in the subsequent years the entire plantations were affected by disease outbreak, caused by a fungi, Corticium salmonicolor. Decline in productivity due to fungus infestation was estimated as much as 50 percent. Some plantations were completely destroyed.**

# INDUSTRIAL PLANTATIONS IN KERALA

- ❑ **There were early signs of impending damage: But they were ignored and there were strong interests in continuing with the programme.**
- ❑ **Unrealistic hopes were placed on technological fixes.**
- ❑ **Eventually the programme was wound up on account of the following:**
  - ❑ **Very low yield which undermined the economic viability of the programme**
  - ❑ **The overall negative perception about exotics, including Eucalyptus.**
  - ❑ **Changing demand and the availability of alternative raw material**

# JATROPHA - A RECENT EXAMPLE

- ❑ **In the 1990s witnessed renewed attention on energy and Jatropha was promoted as a wonder crop providing multiple benefits – win-win-win option - and “The solution for dealing with the energy crisis”**
- ❑ **Several countries in the tropics embarked on large scale Jatropha cultivation.**
- ❑ **Extensive areas were assigned or leased to private investors to raise Jatropha plantations.**
- ❑ **However it is no more the “wonder crop” on account of several factors:**
  - ❑ **A sharp decline in oil prices that undermined economic viability.**
  - ❑ **Actual yields of oil much lower than what was projected earlier**

# PRODUCT DEVELOPMENT USING TRADITIONAL KNOWLEDGE

Probably the first time when access and benefit sharing arrangement was developed

- ❑ The species: *Trichopus zeylanicus travancoricus*
- ❑ Local community involved: The Kani tribe in Southern Kerala
- ❑ Institutions: CSIR Regional Research Laboratory, Jammu  
Tropical Botanic Garden and Research Institute  
Arya Vaidya Pharmacy, Coimbatore



# PRODUCT DEVELOPMENT USING TRADITIONAL KNOWLEDGE – THE CHRONOLOGY

- Botanical expedition in 1987 by the scientists and collection of information from the local guides from the Kani community.
- Product development – Jeevani - by the Tropical Botanic Garden and Research Institute and filing of patent 1996
- Agreement with local pharmaceutical company in 1996.
- Establishment of a Trust for the Kani community 1997
- Funds (part of the license fees and royalty) transferred to the Trust.
- Agreement with Pharmaceutical company comes to an end in 2004 and renegotiation.
- No takers for new arrangements after the agreement with the Pharmaceutical Company came to an end in 2008.
- The Kani Community Trust becomes dysfunctional



# PRODUCT DEVELOPMENT USING TRADITIONAL KNOWLEDGE

**The Kani –TBGRI- Pharmaceutical company initiative on Jeevani was one of the earliest efforts of Access and Benefit Sharing arrangement, even before the emergence of ABS under CBD. It received the UN’s Equator Prize in 2002. Yet in a few years time it became a failed initiative on account of several factors.**

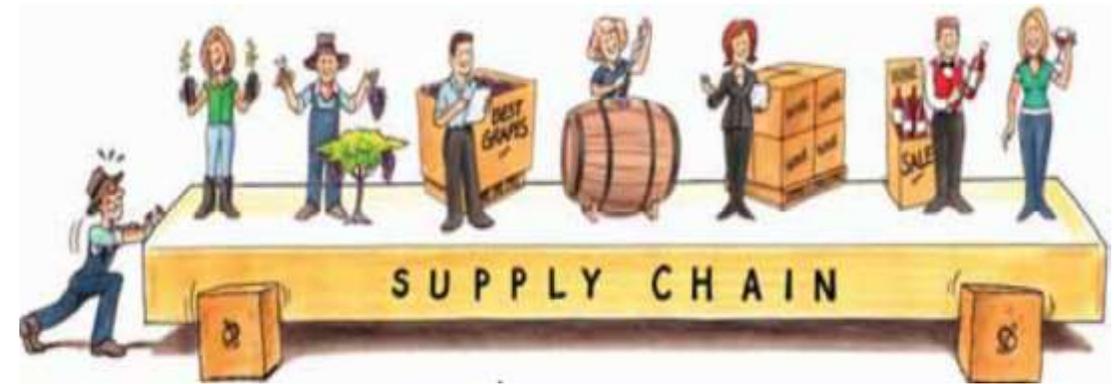
- Ownership disputes over the medicinal plant – Between Forest Department and the local communities.**
- Institutional problems within the Kani tribe trust and conflicts as regards ownership of knowledge.**
- Absence of broad based participation**
- Failure to obtain product patent resulting in widespread copying of the product.**
- Illegal collection of raw material.**
- Conflicting views of different institutions and inability to build a consensus**

# LEARNING FROM FAILURES

- It seems that we are not learning from failures (or early signs of failures) and continue to persist, often knowing well that outcomes will be very different from those visualised.**
- Generally large public sector institutions suffer from severe learning disability.**
- Accountability of leadership is a key to learning from failures. On the whole leadership in public institutions are not held accountable.**
- Those institutions who rely on markets tend to learn from failures faster. Essentially it is a question of survival.**

# SOME CONCLUSIONS

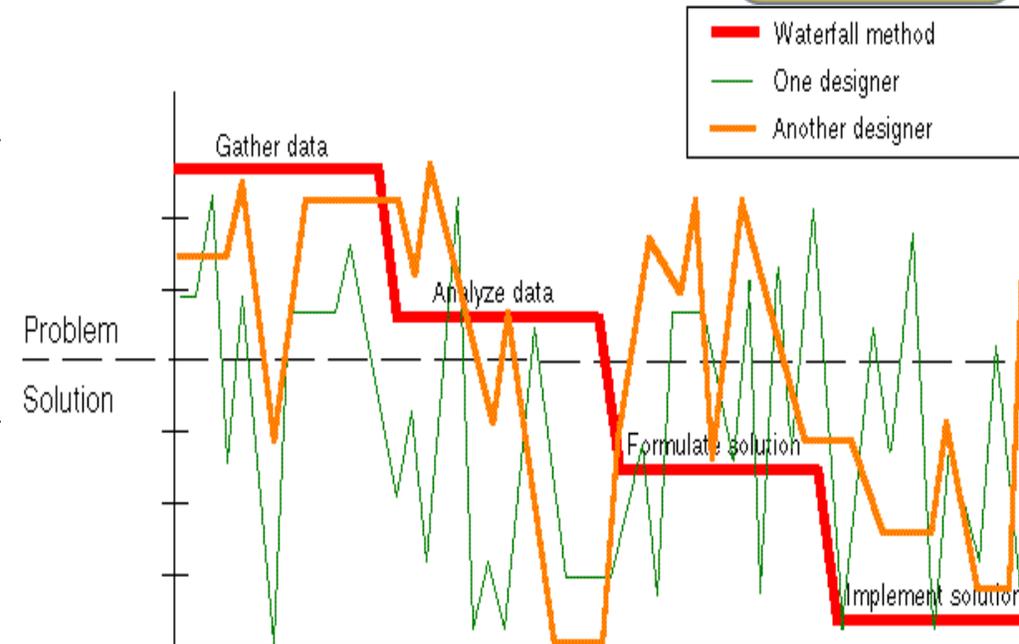
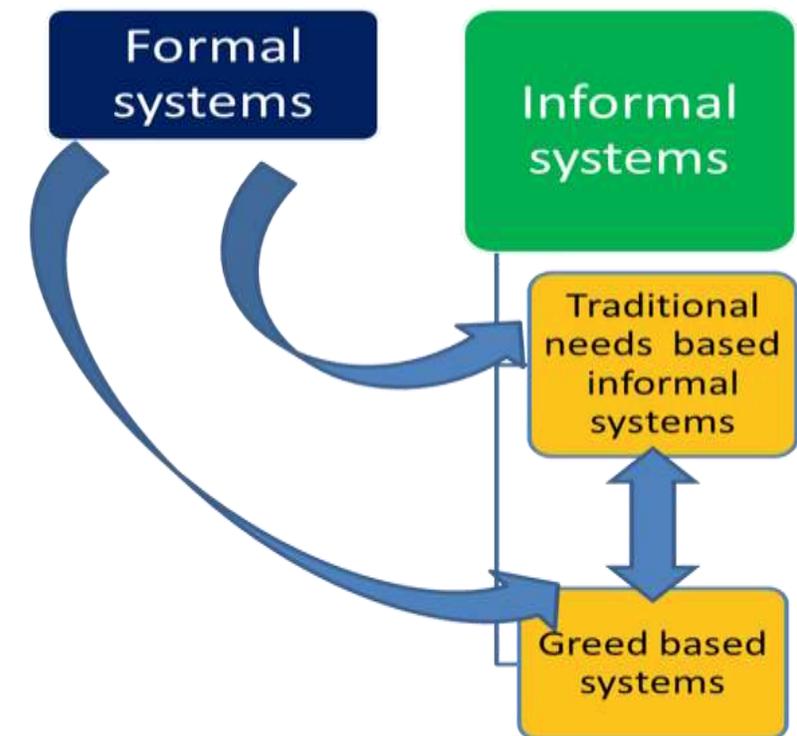
- ❑ As resource managers we tend to be more committed to pursue “supply” side of the issues. The demand aspects seldom find adequate attention.
- ❑ Failure is not life-threatening for the institutions or individuals. We can always find some superficial explanation for failures.
- ❑ No body wants to hear failure stories. Every one is happy to hear success stories. Hence most failures are presented in a palatable way that they appear to be successes.

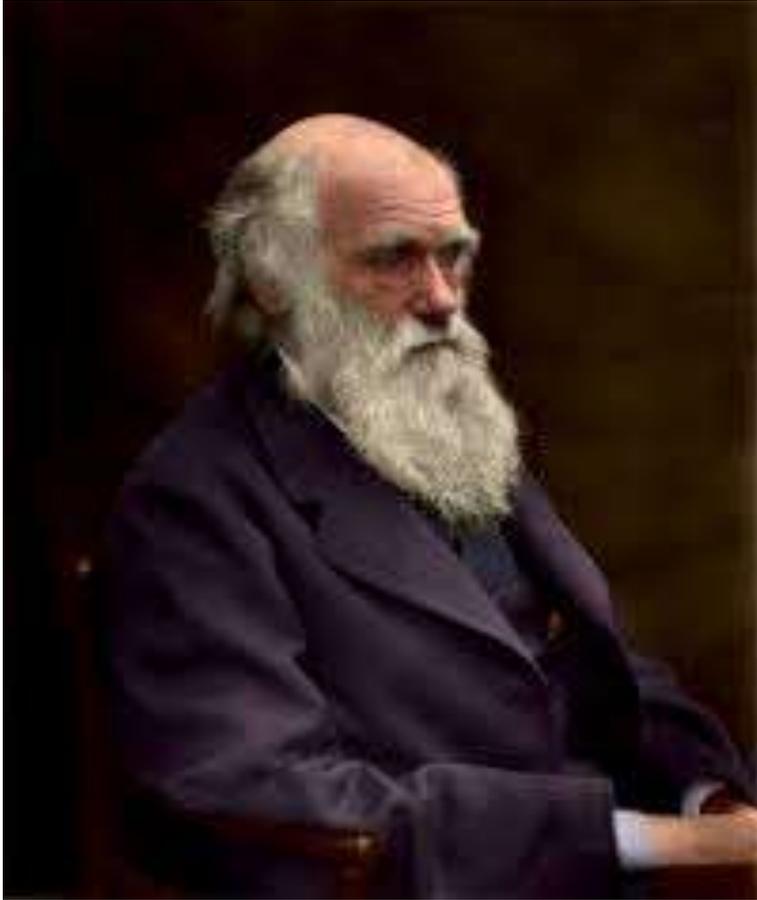


Fearne 2009 (From the presentation made by Neil Byron - 2016)

# SOME CONCLUSIONS

- ❑ System complexities enhances the chances of something going wrong.
- ❑ Preponderance of “informal sector” which will find ways to circumvent or defeat formal interventions.
- ❑ Preponderance of wicked problems which we tend to deal in the conventional approach.
- ❑ Our failures are primarily “failures to learn from failures”.





*“It is not the strongest of the species that survive, nor the most intelligent, but the ones most responsive to change”*

*Charles Darwin*

*Thank you*