



Istanbul University
Faculty of Forestry



HISTORICAL DEVELOPMENT OF FORESTRY EDUCATION AND ITS REFLECTIONS TO FOREST POLICY MAKING

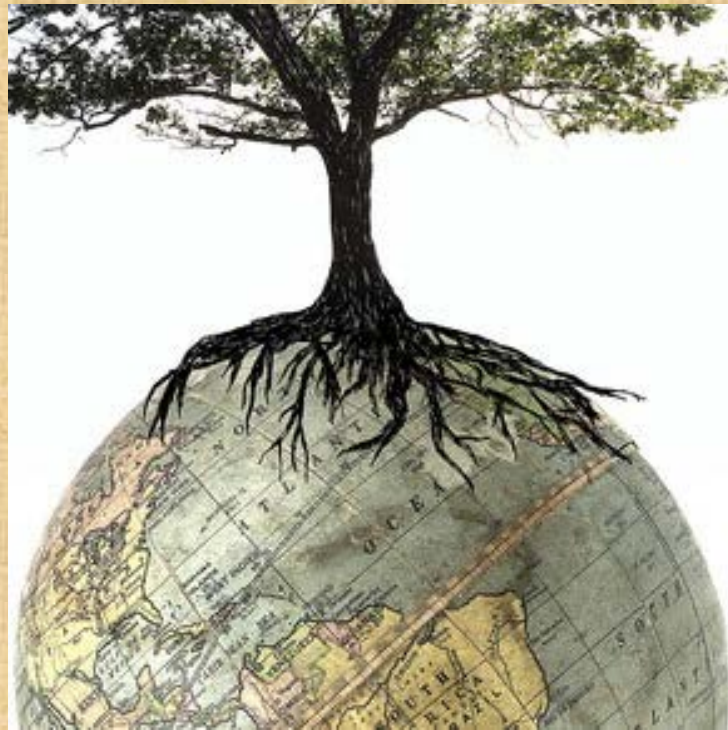
Asst. Prof. Dr.

Seçil YURDAKUL EROL

Department of Forest Policy and
Administration

1. Introduction

- Forest policy has great, pressing needs for information. The state and private stakeholders are well aware of the fact that better information is an important source for solving problems and gaining power.



- Moreover successful policies can only be formulated by establishing close ties between research and policy and also public.



- Scientists can provide natural resource's managers and policymakers with the foundational information for making reasoned decisions on the other hand managers and policymakers use scientific information as an important input to make decisions.



- In recent years the need of integration scientific knowledge with forest policy process gains importance in international level.



- The need for sound scientific knowledge in forest policy making and implementation process has been expressed in various international documents (EU Forest Action Plan, 2006; United Nations Economic and Social Council, 2004; Ministerial Conference on the Protection of Forests in Europe, 2003).

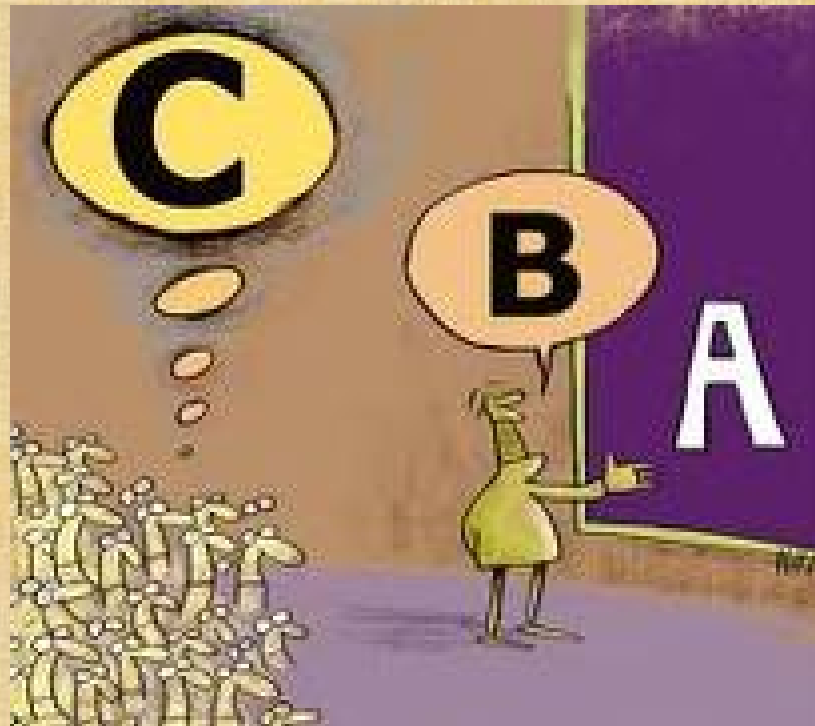
- Also especially IUFRO (International Union of Forest Research Organizations) and CATIE (Tropical Agriculture and Higher Education Center) which are international organizations try to develop the influence of forest researches on forest policy.



- Although this trend has been increased, the policy decisions are taken largely independently from the actions of scientists and researchers. The link between research and policy is often diffuse and direct linkage between research and policy change are rare.



- On one hand it is said that, too often, scientific knowledge is variable, yet policy makers do not use it. On the other hand forest policy makers tend to see that the problem of the insufficient use existing information is mainly the fault of research community.
- The users blame researchers for not working on relevant projects, which would supply the information they need.



- It is possible to make the same evaluation for Turkey. Despite forestry education is accepted as one of the forest policy instruments (in the category of information based instruments) it is not possible to mention that there is an efficient relationship between the two sectors.
- The main policy instruments in the country can be listed as:
 - i) forest ownership,
 - ii) legal instruments,
 - iii) organizational instruments,
 - iv) economical instruments and
 - v) information-based instruments

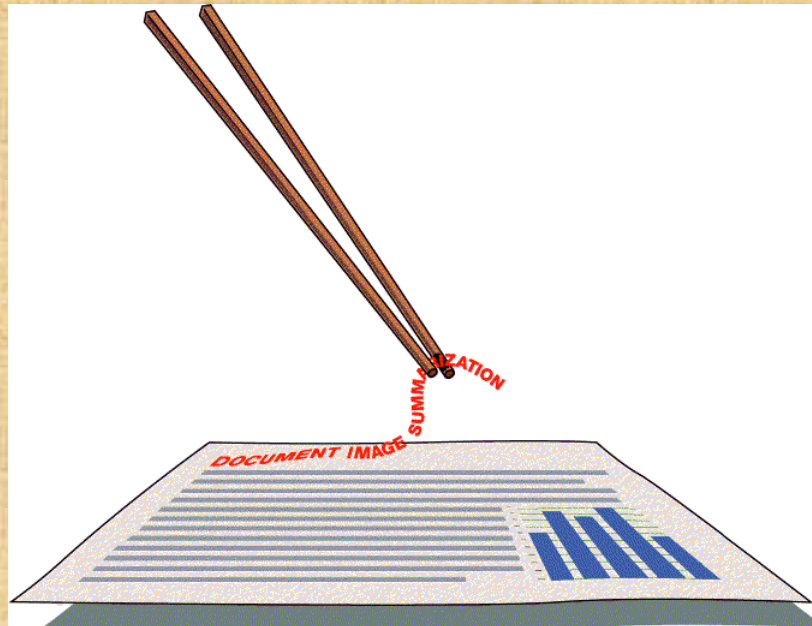
- In this context the aim of the paper is to investigate the place and perception of forest education/science in some forest policy documents. Also the place of forest policy and organization is evaluated in the context of the documents regarding forestry education.
- On the other hand the historical process of forestry education and forest policy is explained chronologically.
- Finally the prominent issues are considered and some suggestion are made in the context of Turkish forestry case.



METHOD

- Document-based investigation was used in this research. First of all the historical relations of Forestry Sector and Forestry Education were analyzed by literature review.
- Then content analysis was applied on both recent forest policy and forestry education related documents.

- Content analysis is a research method for making replicable and valid inferences from texts to the context of their use. Thus content analysis is useful for examining trends and patterns in documents . Sentences were used as the coding unit. Frequency analysis was utilized to determine the number of key expressions. And then the meanings of the related sentences were analyzed.



- First of all some of the current national forest policy documents and strategic plans are investigated to determine the approaches and demands through forestry education.

These documents are:

- Special Report on Forestry of 9. Five Year Development Plan
- Turkish National Forestry Program
- Strategic Plan of Ministry of Forestry and Water Affairs 2013-2017
- Strategic Plan of General Forest Directorate 2013-2017
- The other documents that involve forest policy aims like legal arrangements and other documents are left out of the research scope.

- The key words that searched in the mentioned documents are
 - “university- faculty of forestry” .
 - “research institutions” ,
 - “forestry education” ,
 - “in-service training” ,
 - “vocational high school”
 - “science- scientist” ,
 - “research-researcher” .



- In the second phase the documents related forestry education are analyzed. There is not a common in other words national wide forestry education policy document. Thus the strategic plans (SP) of Turkish Forestry Faculties are examined.
- The legal arrangements and master plan of Research Institutions are left out of the research scope.

- The key words that searched in the mentioned documents are
 - Forestry Organizations,
 - Related sectoral policies,
 - Sectoral demand,
 - Sectoral problem,
 - Local-legal contributions.





- Chronologic Explanation on Backgrounds of Turkish Forestry Education and Forest Policy
- Qualitative Finding on Forest Policy and Education Interactions

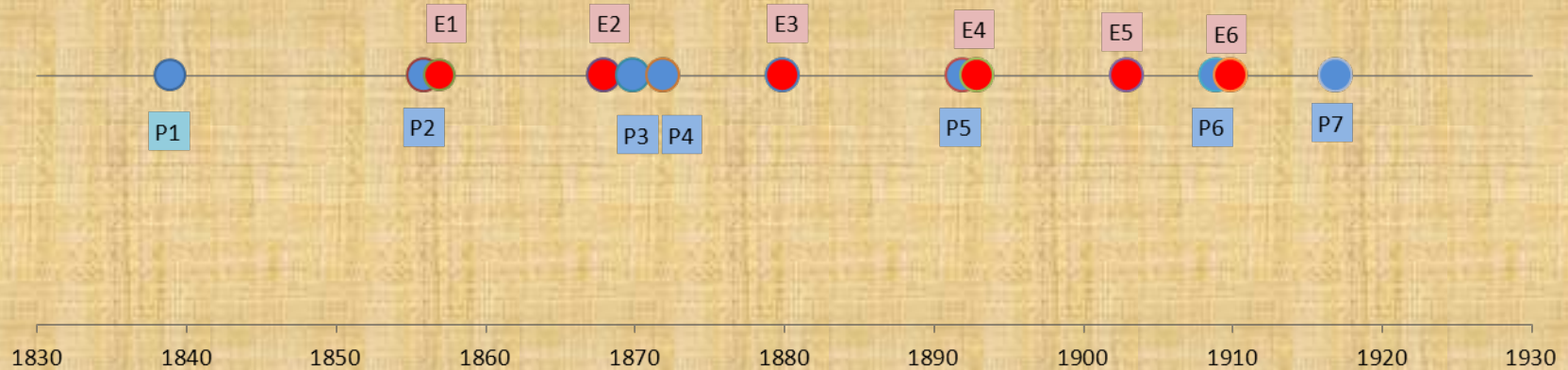
Ottoman Empire Period

- Forests were used as a source of income in early stages of Ottoman Empire. Upon the issuance of the Reform Declaration, more attention was paid to forestry.
- By the effect of this perception some developments are occurred in the historical process.



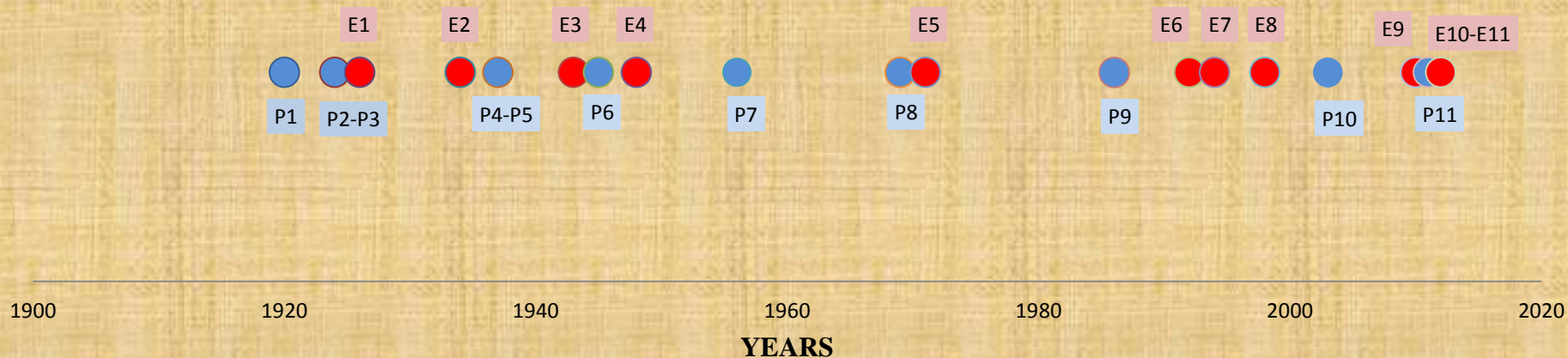
Sultan Abdülmecit; Reign: 1839-1861

Graph 1. The Historical Process of Some Important Events on Forest Policy and Forestry Education in Ottoman Empire Period



- P1: Establishment of Forest Directorate -under Trade Ministry
- P2 : Invitation of French Experts
- E1: Foundation of Forestry School
- E2: Revolutions on Forestry School's Administrative Structure and Educational Activities Consolidation to Forestry Organization as an official
- P3: Forest Regulation -that prevented free utilization
- P4: Consolidation of Ministries of Forestry and Mining
- E3: Forestry School merged with Mining school
- P5: Organizational Connection between Ministries of Fodestry, Mining and Agriculture
- E4: Operating Forestry education under Agriculture School
- E5: Forestry education and agricultural education began to be collaborated
- P6: Foundation of Forestry Local Administrative Units
- E6: Establishment Forestry High School
- P7: Law on Scientific Management of Forest was issued

Graph 2. The Historical Process of Some Important Events on Forest Policy and Forestry Education in Turkish Republic Period



- P1: Law on Coppice
- P2 -P3 : Law on Villagers' Right on Utilization from State Forests & Law on Technical Management on Operations of Forests
- E1: Forestry school began to be managed by a rectorship Forestry school has an autonomous management status
- E2: Founding Faculty of Forestry
- P4-P5 : Modern Comprehensive Law for Turkish Forestry (Law N.o 3116) & Establishment of General Directorate of Forestry
- E3: The big part of education process was began to be given in İstanbul
- P6: Forest Law No. 4785 - adopting principle of state ownership in Forestry
- E4: Forest Faculty was connected to Istanbul University
- P7: Forest Law No. 6831- nature protection became as a national policy aim
- P8: Ministry of Forestry was Founded independently
- E5: Foundation of Karadeniz Technical University Faculty of Forestry
- P9: Law No. 3302 - Afforestation activities made by individuals and institutions was permitted
- E6: Establishment of 6 Forest Faculties
- E7: Establishment of Çankırı Karatekin University Faculty of Forestry
- E8: Reorganization activities in Istanbul University Faculty of Forestry
- P10: Consolidation of Ministries of Forestry and Environment
- E9: Establishment of 2 Forest Faculties
- P11: The ministry's name was changed as Ministry of Forestry and Water Affairs
- E10 -E11: Foundation of Karabük University Faculty of Forestry & Accreditation Process for some Forestry Faculties



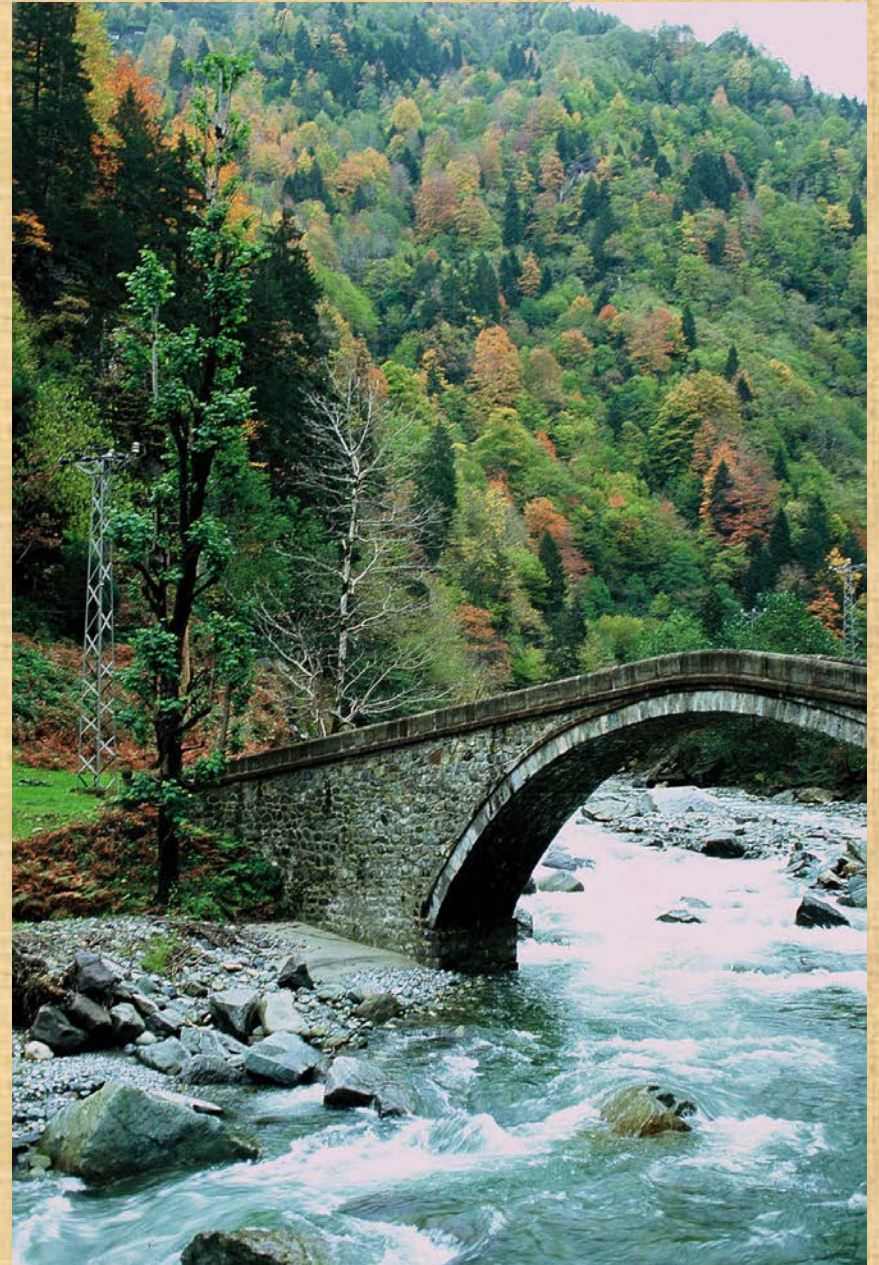
In the light of the historical development it can be said that the earlier forest policy aim was to generate income from forests and protect forests to main the continuity of this aim.

- Then the national defense function of the forests came into prominence at the Turkish independence war.
- In the first years of Turkish republic the social and nature protection functions gained importance as forest policy aims.



•Carrying of Firewood (fuel wood) by forest villager women (initial years of Turkish Republic)

By the time enlargement and protection of forest area, development its social functions increased their importance in addition wood production aim. By the law no 6831 national park so nature protection concept took its place among the national forest policy aims.



Kaçkar Dağları National Park, Rize

- The modern aim of Turkish forest policy is mentioned as:
“To contribute public welfare and sustainable development of Turkey by sustainable management of forest resources”.



This is a short expression but when the components of current policy tools are examined the deeper meaning can be seen clearly.

Generally

- development of biodiversity,
- protection of forests against biotic and abiotic factors,
- enlargement forest area,
- multi-functional utilization from forest resources,
- non-wood forest products production,
- improvement the socio-cultural functions - recreation, eco-tourism, landscape, wildlife, game, education etc.- of the forests are some of the emphasized points.



- Also supporting rural development and especially contributions to forest villager's development are the other axes of current forest policy.

- On the other hand if the main resources of Turkish forest policy is evaluated it is seen that the subjects of
 - 1) cooperation between institutions,
 - 2) research-development and education,
 - 3) human resources development,
 - 4) participation to global processes,
 - 5) meeting EU's standards,
 - 6) creating social awareness,
 - 7) reevaluation of legal arrangements,
 - 8) participation and
 - 9) sustainability are expressed in each documents.

- The early aim of forestry education focused on just to educate forestry professionals to work for national forestry organization.



- Beside this, forestry education's current aims are varied as producing knowledge, raising awareness of society, contributing sustainable development and playing active role in forest policy making process.



- It can be said that Turkish Forestry Education has improved in its 156 yeared-background. Especially some reorganization activities and strategic planning processes have implemented in some forestry faculties in last years. Some new departments like Wildlife Ecology and Management and Ecotourism was established in recent years.
- Furthermore, forestry junior colleges were established by some Forestry faculties.



Qualitative Finding on Forest Policy and Education Interactions

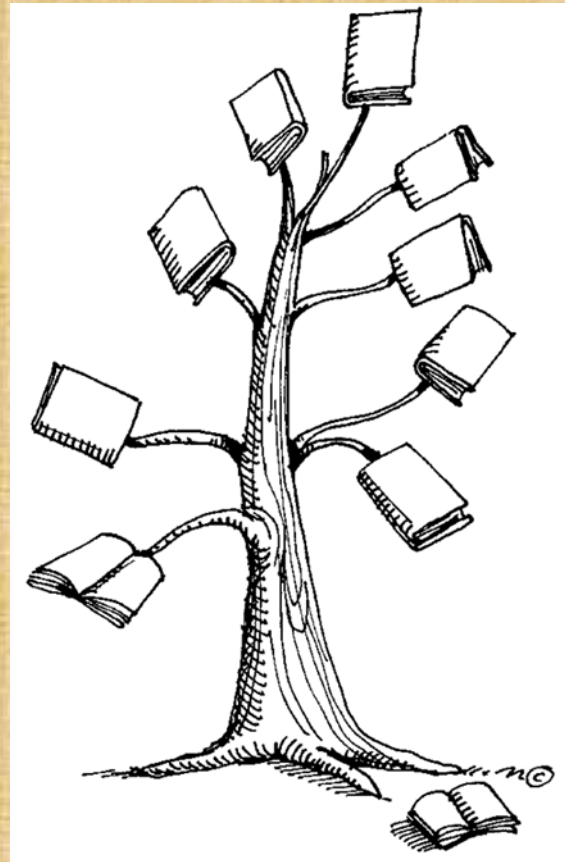
- Table 1: Distribution of Key words on forestry Education in some National Policy Documents

Key Word Document	Turkish National Forestry Programme	Special Report on Forestry of 9. Five Year Development Plan	Strategic Plan of General Directorate of Forestry	Strategic Plan of Ministry of Forestry and Water Affairs	TOTAL
University & Forestry faculty	37	13	7	12	69
Research Institutions	35	14	12	3	64
Forestry education	5	12	6	2	25
In service training	10	9	7	9	35
Vocational high school	2	3	2	-	7
Science-scientist	17	9	6	-	32
Research-resercher	78	28	13	8	127
TOTAL	184	88	53	34	359

- Forestry faculties, universities, science and research institutions are defined as the important stakeholders in the documents on forest policy.
- Also the importance of collaboration and the necessity of coordination and communication between the institutions are highlighted.



- The privileged demand of forestry sector from the education and research institutions can be categorized as:
 - i) to educate the students on actual forestry subjects



- ii)to organize in service training programs,



- iii)to support the projects on raising the awareness of public,



- iv)to support capacity building



- v) to increase the number and quality of researches that are useful for the implementers,



- vi)to contribute the planning, implementing and controlling processes in some forestry issues (like protected areas, biodiversity, nonwood forest products, silviculture, public relations, forest fires, rural development, legislations, wildlife management, participatory processes, marketing, afforestation, certification, ecosystem management, biomass etc.),



- vii)building national
- network

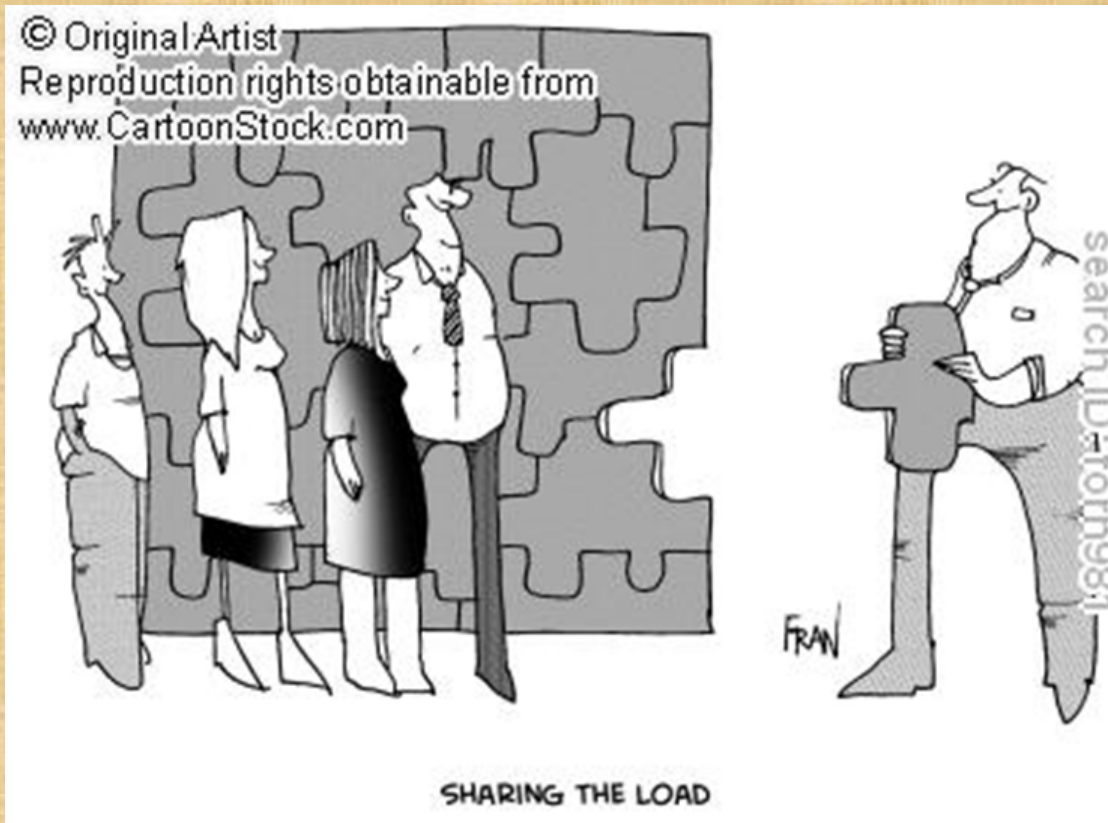


- viii)organizing joint
research and
education project
and also meetings.

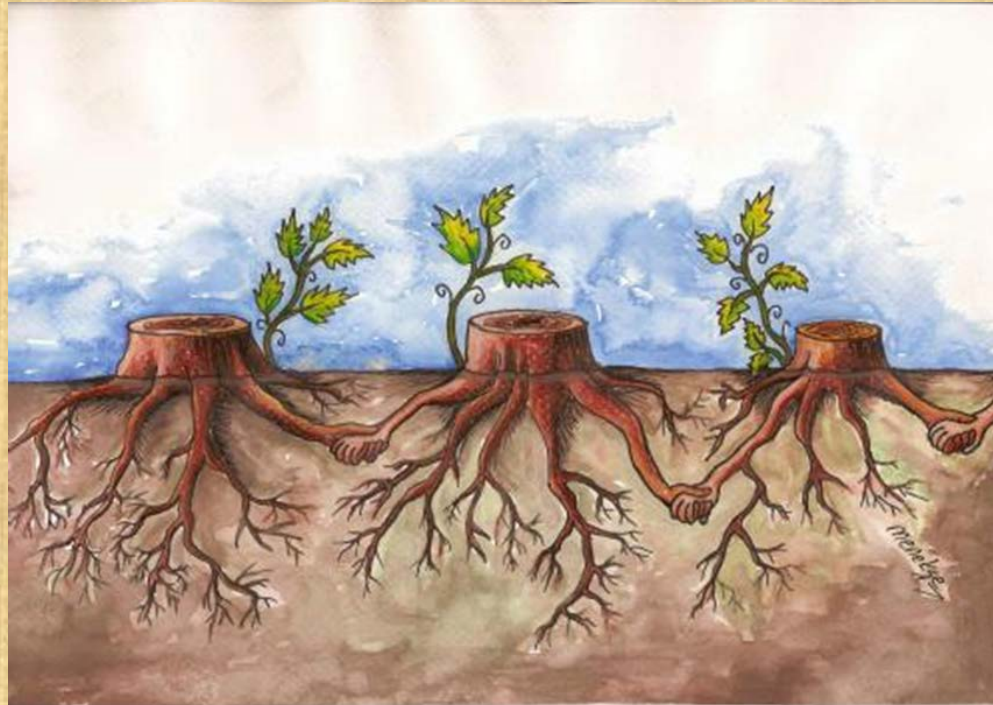
Table 2: Distribution of Key words on Forestry Organization in some Forestry Education Documents

Key Word	SP Artvin Çoruh Un. Faculty of Forestry	SP Bartın Un. Faculty of Forestry	SP Düzce Un. Faculty of Forestry	SP İstanbul Un. Faculty of Forestry	SP Karadeniz Technical Un. Faculty of Forestry	SP Süleyman Demirel Un. Faculty of Forestry	TOTAL
Document-Strategic Plan (SP)							
Forestry Organizations (Ministry of Forestry and Hidrolic Works General Directorate of Forestry Related Public Institutions)	6	3	1	15	4	3	32
Sectoral Policy	-	-	-	1	-	-	1
Sectoral Demand	1	4	1	2	-	2	10
Sectoral Problem	2	4	1	8	5	2	22
Local -Regional Contribution	3	4	2	1	1	2	13
TOTAL	12	15	5	27	10	9	78

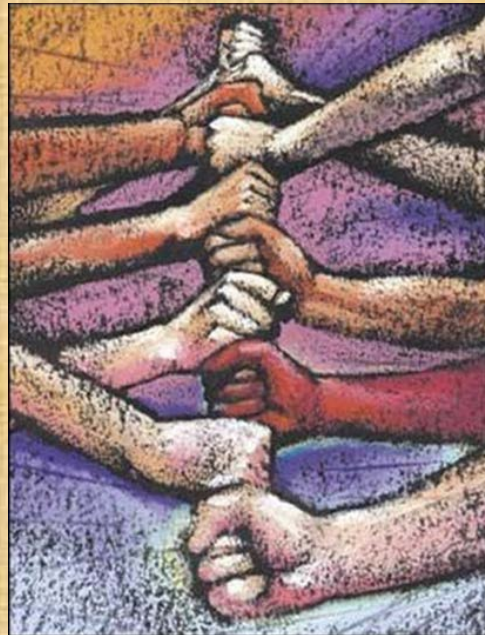
- Forestry institutions and organizations are accepted as one of the stakeholders in the strategic plans of forestry faculties.



- Conducting common research and education projects, organizing common scientific meetings, contributing to in-service training activities of forestry institutions are the prominent aspects in mentioned plans context.



- There are also some specific point that are mentioned in some of the strategic plans on
 - sharing the results of the researches with related forestry units,
 - considering the sectoral demands while determining research priorities and
 - improving the cooperation in local and regional level.





- It is seen that there is a deep interaction between forestry education-research and forest policy-organization.
- The historical processes and developments of the forest policy and education reveal this relation.
- Also the findings of content analysis prove this result.

- The changes in forest policy have affected forestry education's curriculum, course contents and system. Also the developments in forestry education mean the development on the forestry technical personnel and improvement on scientific and research support to forest policy. Thus it is not possible to solve the problems in both arenas without the support of the other one.

- Both of the related groups define the other one as the main participant in decision making and implementing processes but do not consider its' standpoints sufficiently in its own decisions. In other words the suggestions of the other group aren't put into project really.



- Although the groups are willing to contribute the other's development process but active contribution hasn't occurred yet.
- It is clear that the results of researches and opinions of scientists haven't taken into consideration in a satisfactory level in policy making process.
- Also the forestry faculties couldn't meet the expectations of forest policy and forestry organization sufficiently.

- The main factors that affect these situation can be sorted as;
 - political impacts,
 - bureaucracy,
 - insufficient communication,
 - centralized management systems and
 - lack of effective participative management mechanism.



- But it is important that the recent documents show that forest faculties and forestry organization as the main components of forest policy understand and give importance to the role of each other.



- Effective communication,
- participation,
- innovation and
- collaboration are the main key factors to unlock the current problems.



- Furthermore a network that is used to share scientific research results in a shorter and easier to comprehend format, to determine the need of forestry organization, to develop joint projects, to find the basic data about forests and forestry etc. should be organized.

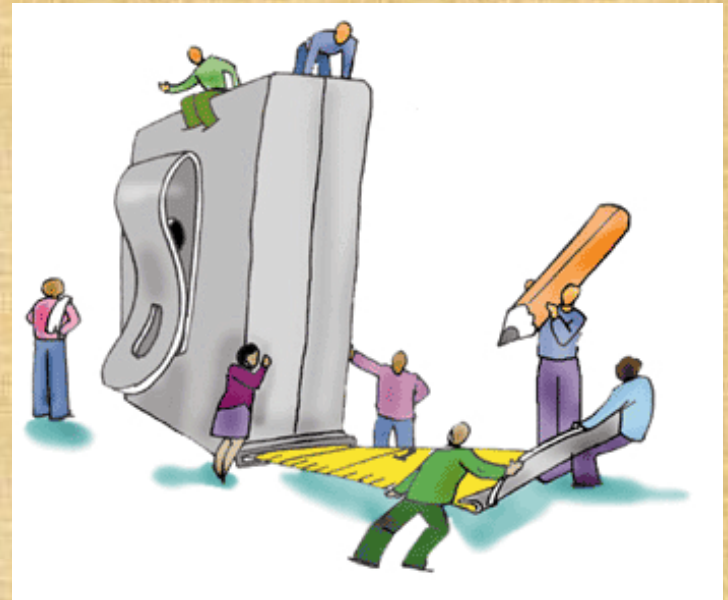


- Research and education priorities should be determined in participative way but the other participants also should be taken into consideration. The same suggestion is also valid for forest policy process.



- The role of scientific knowledge and scientists should be strengthened and their advisory function should be used as one of the main guides of policy-making system.

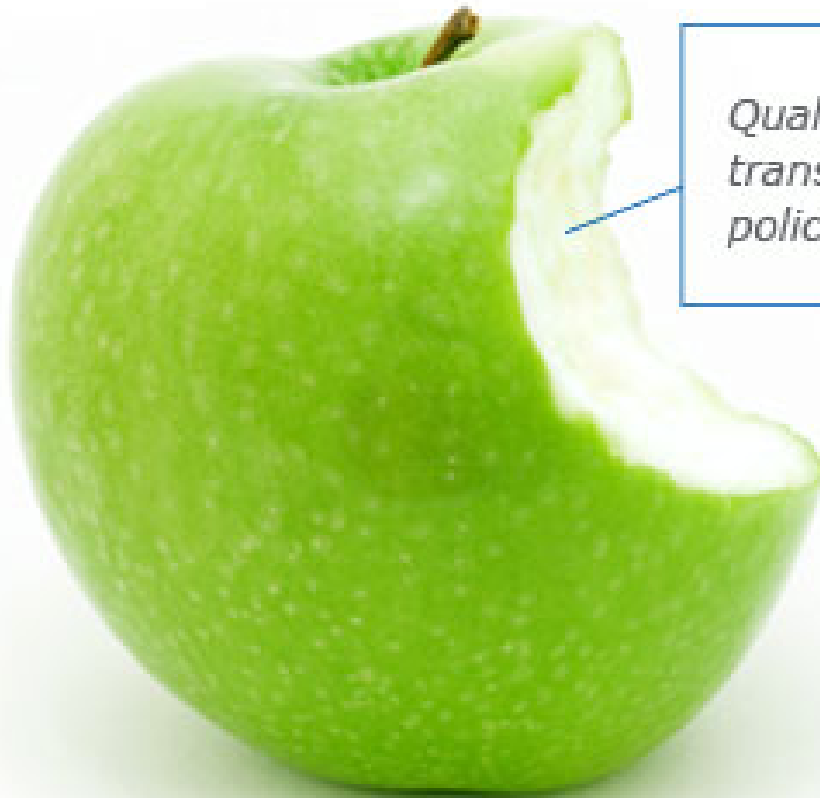
- Also the institutional capacities should be developed for both forestry organization and forestry faculties



- and also funding mechanisms should be provided for cooperation and coordination in research and implementation activities.



THANKS FOR YOUR KIND INTEREST



*Quality applied research
translates into actionable
policy and practice.*