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26	-9-1
27	-10-1
28	:
28	-1-2
30	/ -2-2
31	- -3-2
32	-4-2
35	-5-2
35	-6-2
37	-7-2
38	-8-2
38	-9-2
40	:
40	-1-3
42	-1-1-3
43	-2-1-3
44	-3-1-3



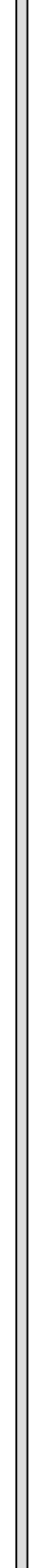
44	-4-1-3
45	-2-3
45	-1-2-3
45	-2-2-3
46	-3-2-3
46	-4-2-3
46	-5-2-3
47	:
47	-1-4
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49	-2-1-4
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56	-4-2-4
56	-5-2-4
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59	-3-3-4
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70	-2-1-6
71	-3-1-6
72	-2-6
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72	...	
73	-3-6
73	-1-3-6
75	-2-3-6
76	-3-3-6
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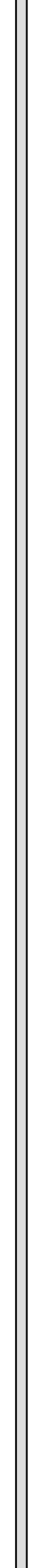
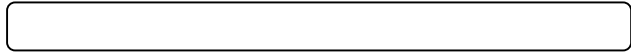
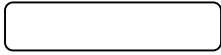
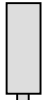


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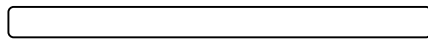
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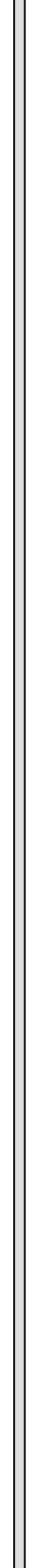
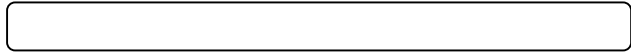
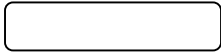
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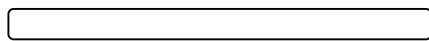
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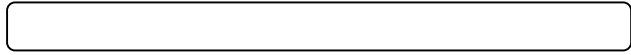
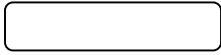
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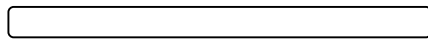
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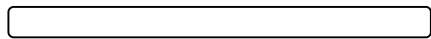
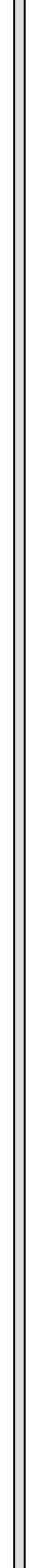
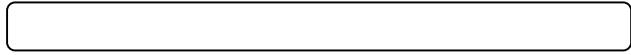
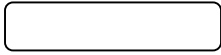




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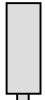
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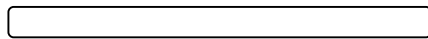
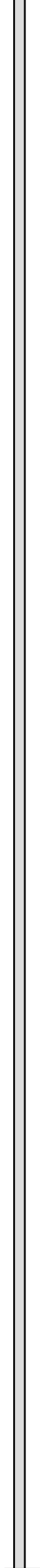
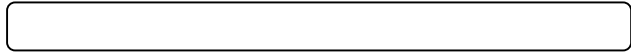
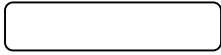
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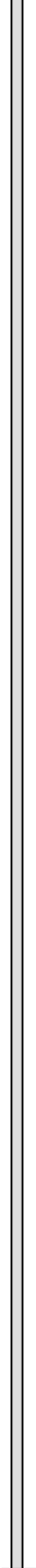






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* Source: Osman El Tom Hamad (1999)

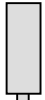
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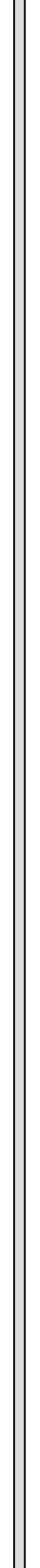
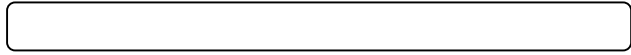
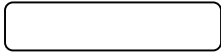
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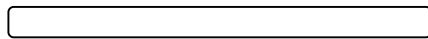


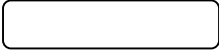
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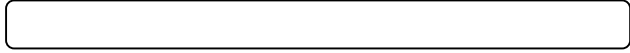
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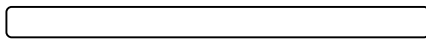
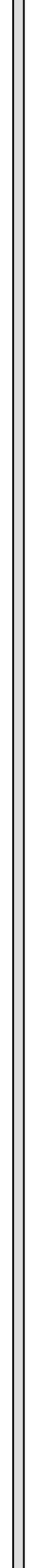




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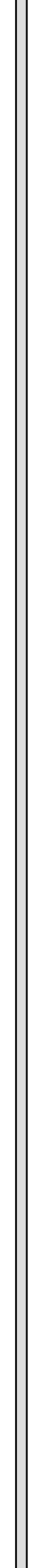
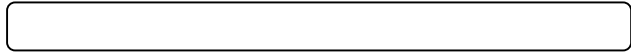
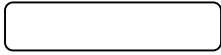
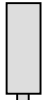
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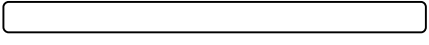
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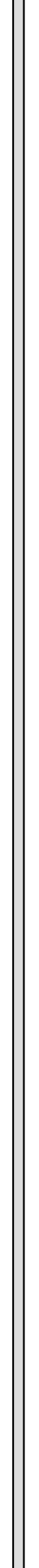
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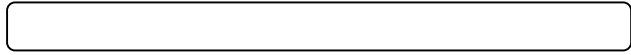
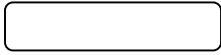
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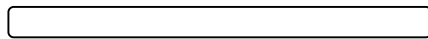
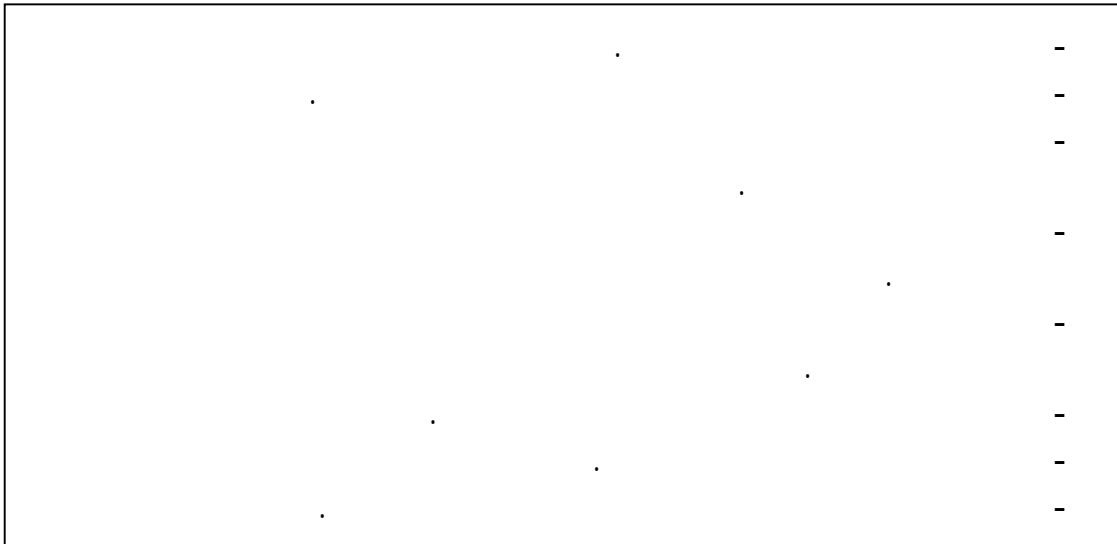
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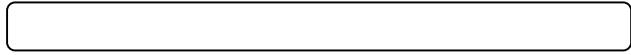
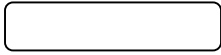


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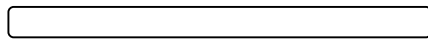
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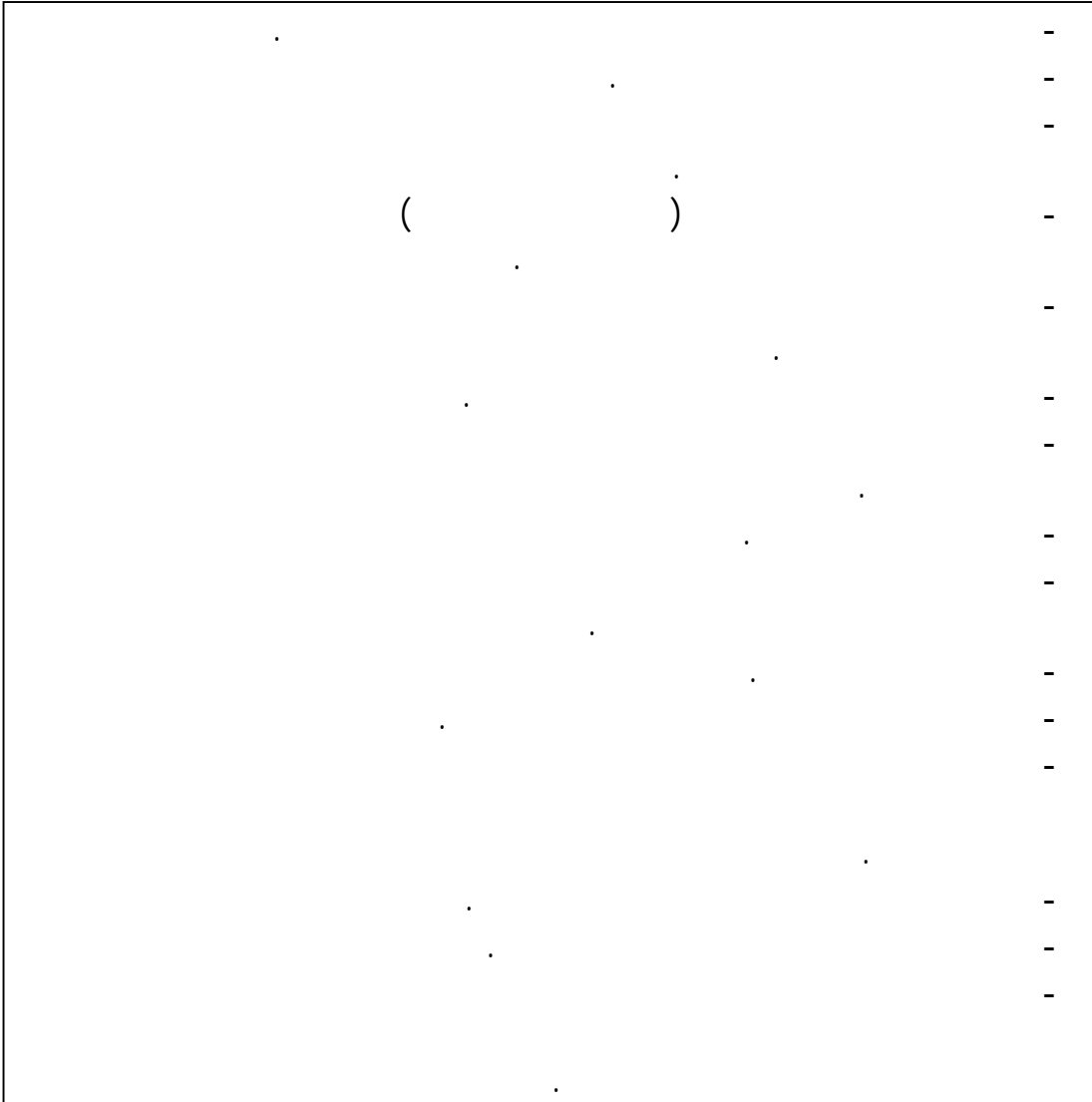
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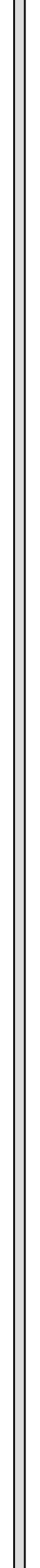
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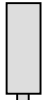
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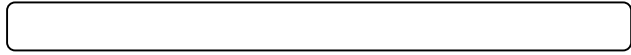
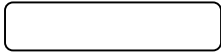
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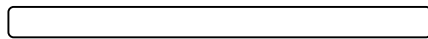
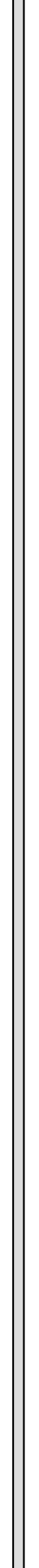
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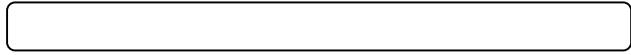
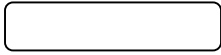
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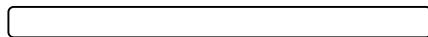
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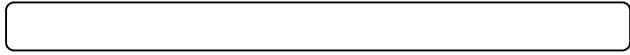
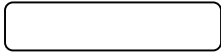
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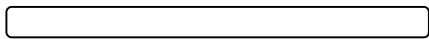
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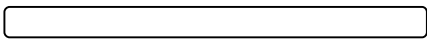
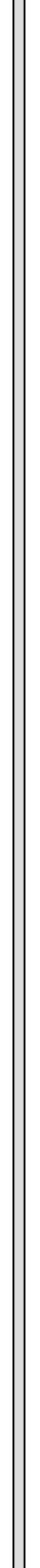
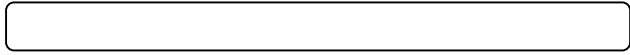
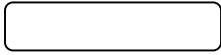
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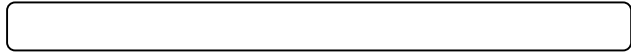
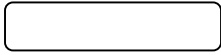
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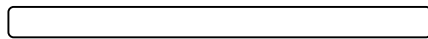
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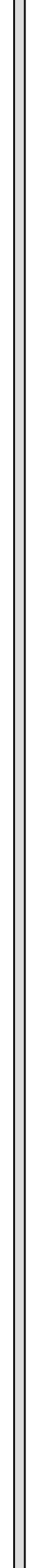
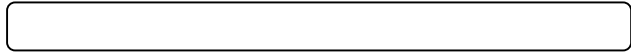
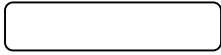
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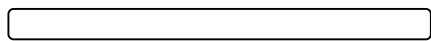
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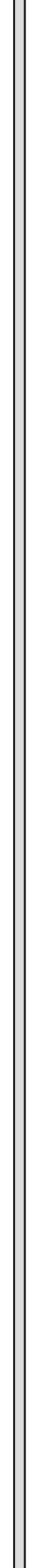
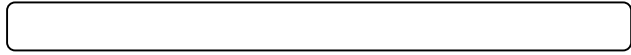
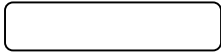




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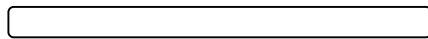
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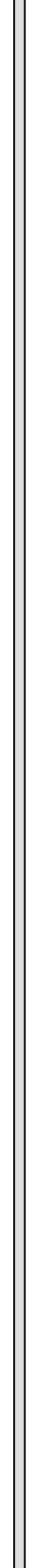
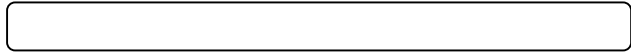
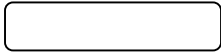
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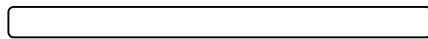
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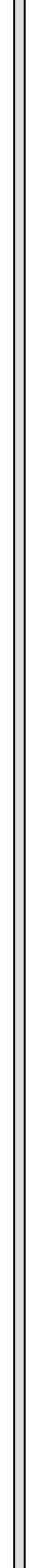
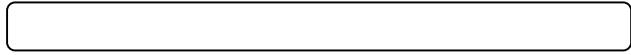
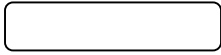
Sheikh Ordinance Law 1927

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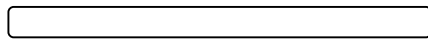
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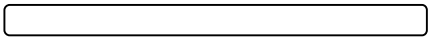
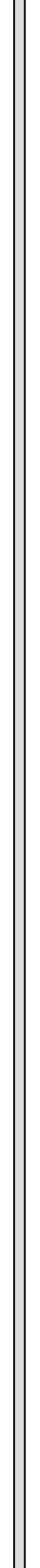
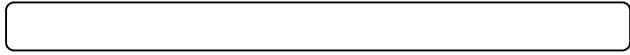
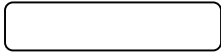


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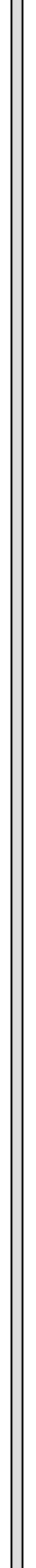
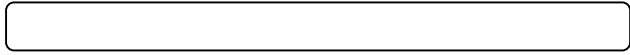
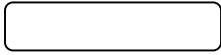
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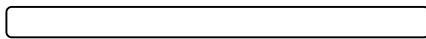
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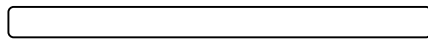
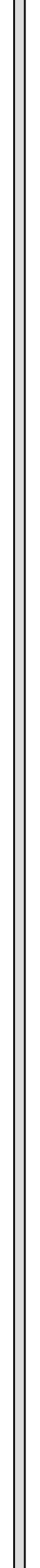
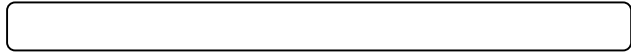
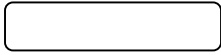
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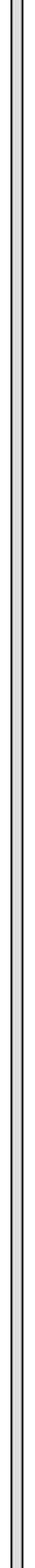
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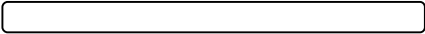






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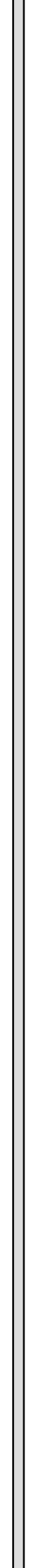
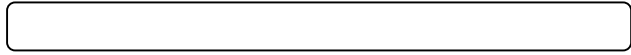
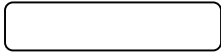
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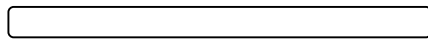
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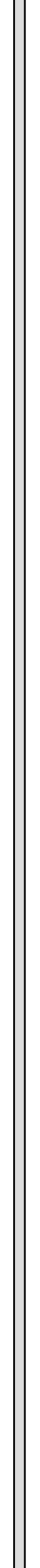
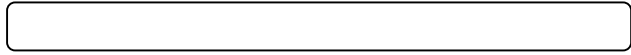
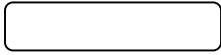
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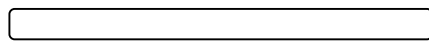
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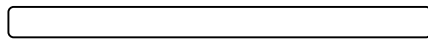
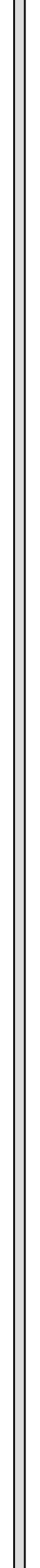
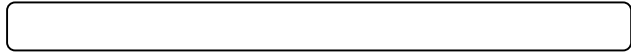
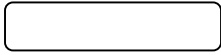
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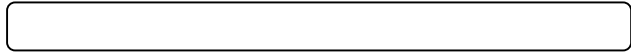
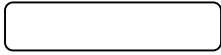
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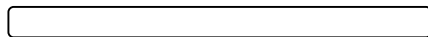
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Desert Creep In The Sudan and Other Parts

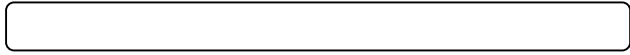
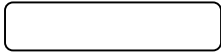
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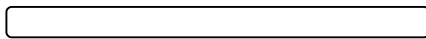
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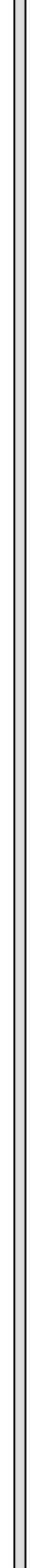
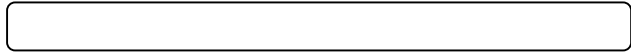
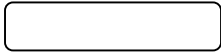
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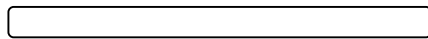
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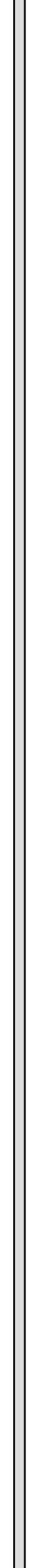
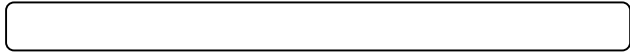
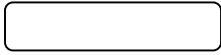
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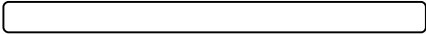
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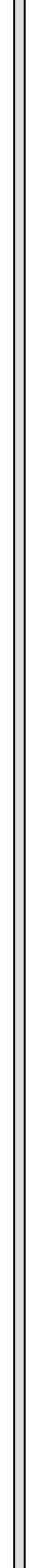
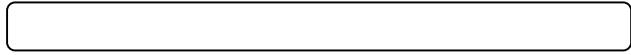
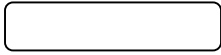




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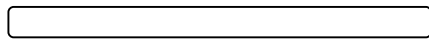


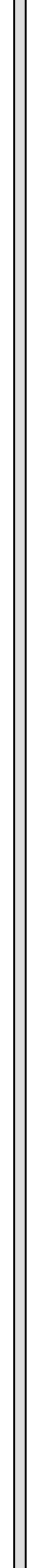
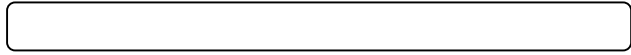
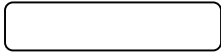
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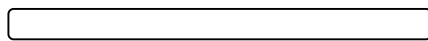


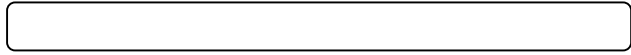
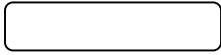
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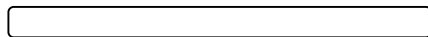
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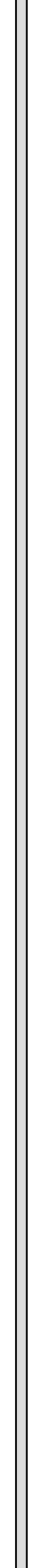
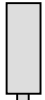
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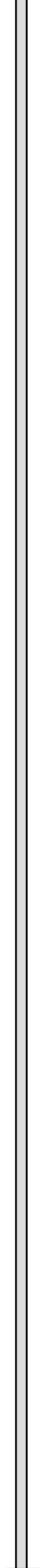
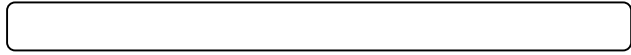
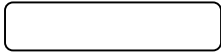
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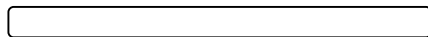
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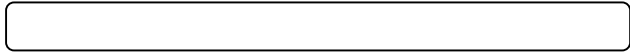
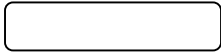
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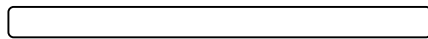
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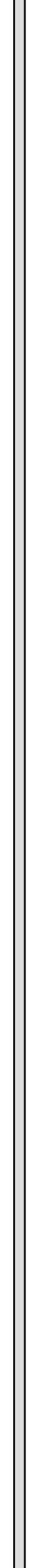
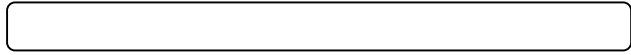
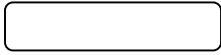
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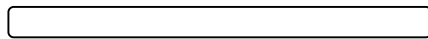


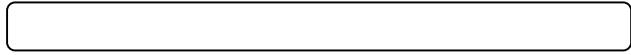
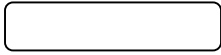


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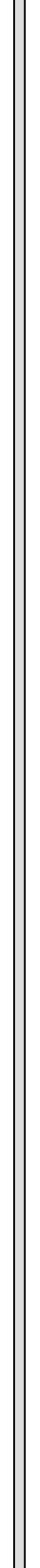
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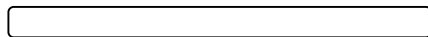
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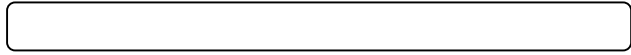
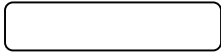
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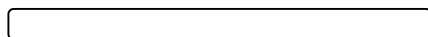
:1956-1946 1-1-5

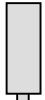
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1958 :2-1-5

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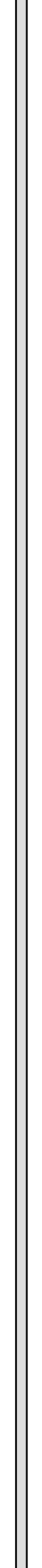
1958 :3-1-5





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: 1962 : 4-1-5

: 1966- 1956 : 5-1-5

1901 : (1901) : 6-1-5

(1932)

1997 1986

1989

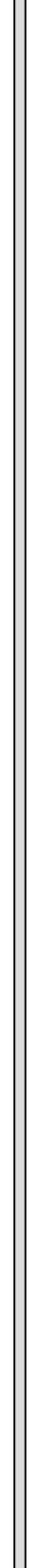
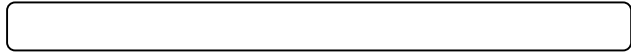
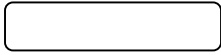
: (1947)-7-1-5

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1954

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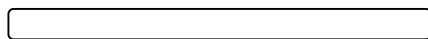


: **(1902) 8-1-5**

1902
1935

1972

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- 1969

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:1974

:1983-1975 : 11-1-5

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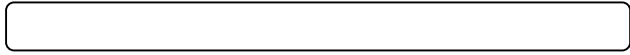
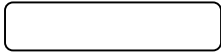
DECARP (Desetr Encroachment Control)

: 2001-1996 : 12-1-5

: 2001-1976 :13-1-5

UNCCD (United Nations Convention
for Combating Desertification)

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1992 : 14-1-5

1992

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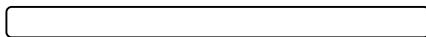
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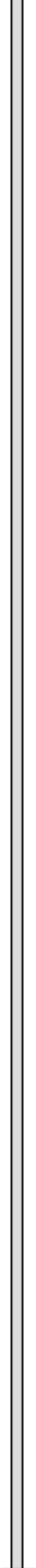
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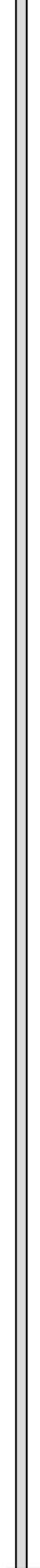
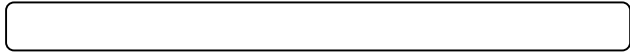
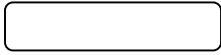
(2001)

(Climate Change Issue)

(Biodiversity)

.(IFAD)

: 4-2-5



:(IGAD) 5-2-5

(UNEP)

(GM)

(UNCCD)

(GEF)

(UNDP)

(UNCCD)

(NAP)

(UNDP)

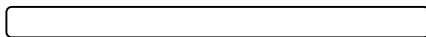
6-2-5

(ADSs)

(ARSs)

2001-1989

(Governance)



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: (IFAD) 7-2-5

(North

:

Kordofan Rural Development Project-NKRDP)

(South Kordofan Rural Development Programme

(SKRDP)

500

696

%40

%90

262

262

30

300

:(GEF)

8-2-5

Bio Diversity

(Climate Change Issue)

(Dinder National Park)

(Red Sea Bio-Diversity Project)

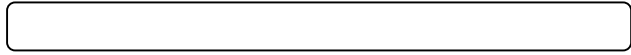
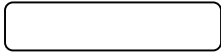
(Jebel Marra Bio-diversity Project)

: (FAO)

9-2-5

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600

: (Nile Basin Initiative)

10-2-5

.2001

: (UNICEF)

11-2-5

Environmental
(Friendly

(Water And Sanitation WES)
Village Initiative – FVI)

(AOAD)

12-2-5

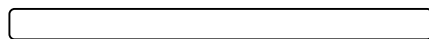
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1984

1986-1984

1992-1986

1995



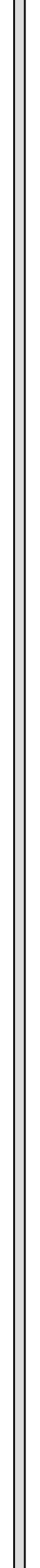
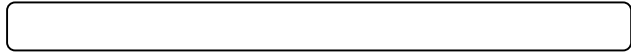
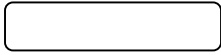


(The NGOs National Co-ordination
Committee on Desertification (NCCED)

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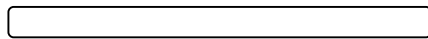


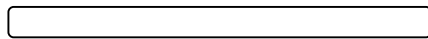
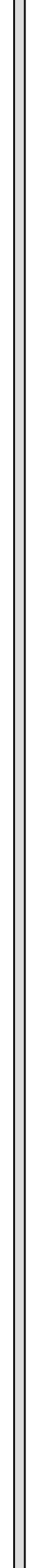
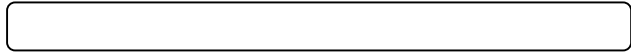
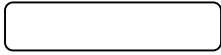
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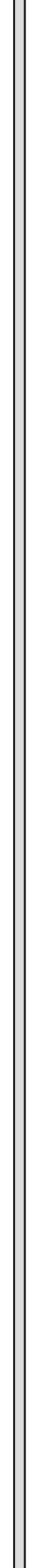
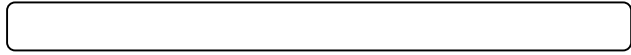
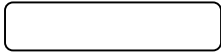
(1998)

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3-1-6



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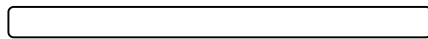
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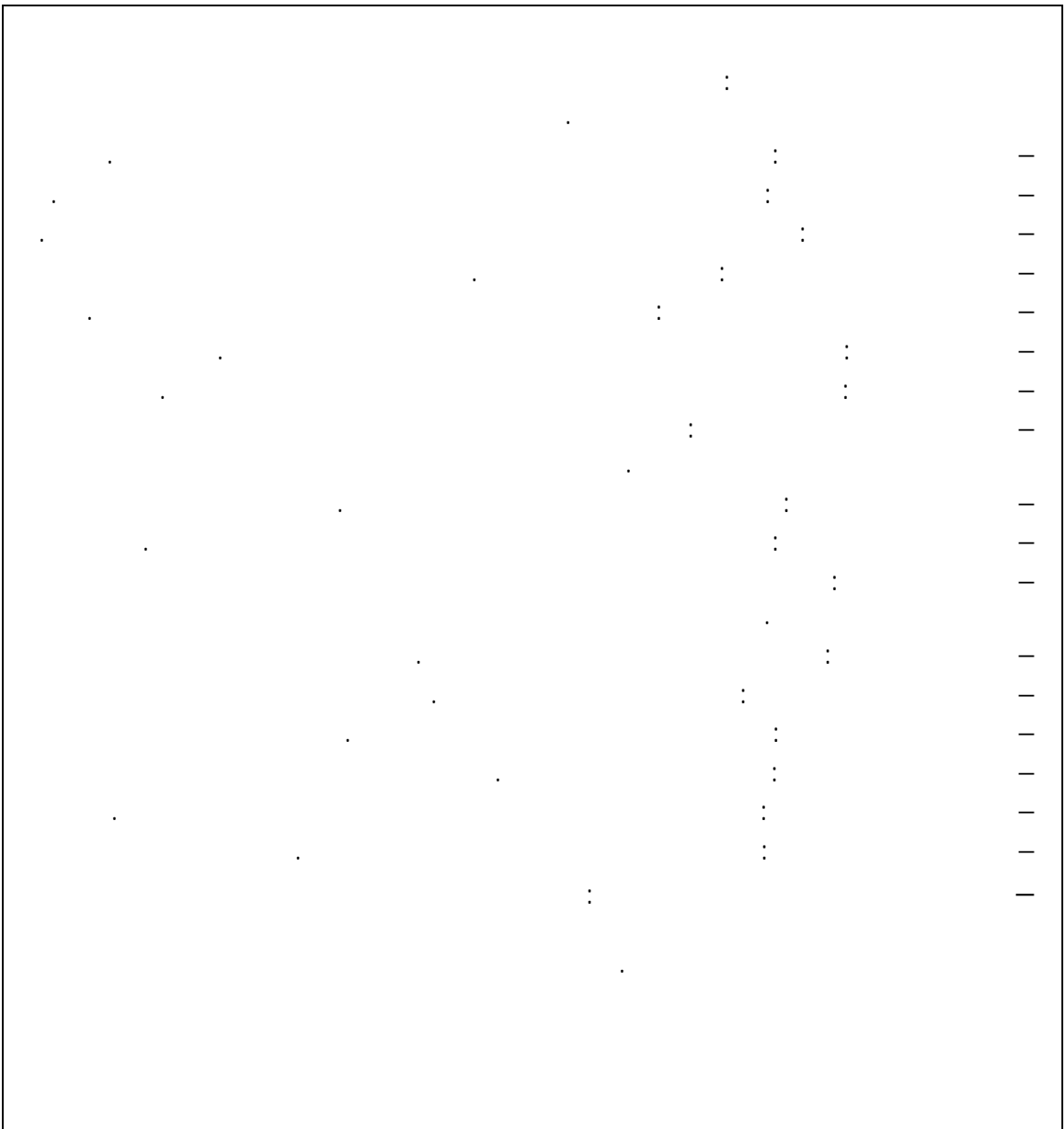
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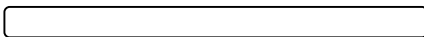
(Higher Policies Council for Combating Desertification)

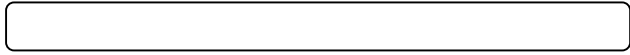
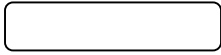
(Technical Steering

Committee)

(National Fund for Combating

Desertification)





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1975

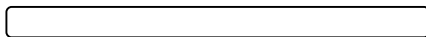
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(UNSO)

1997

(National Plan)





(Project Planning)

National Action Programme for .

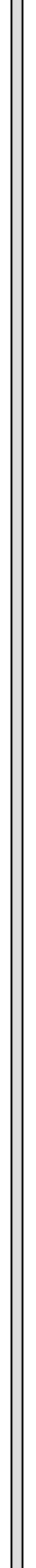
(IFAD) Combating Desertification- NAP)
(Road Map) (Global Mechanism-GM)

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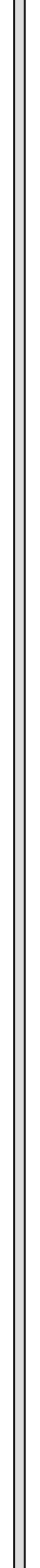
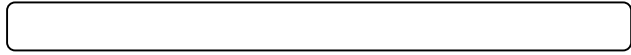
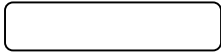
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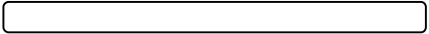
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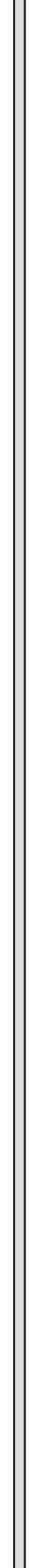
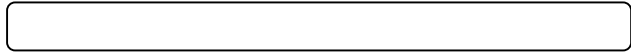
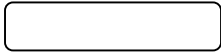
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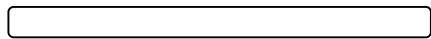




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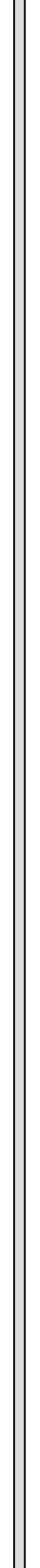
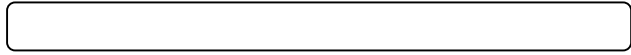
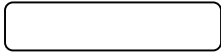
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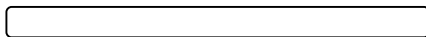
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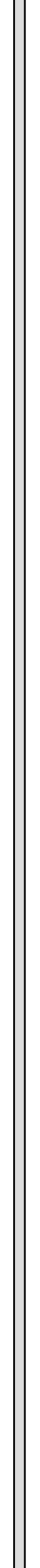
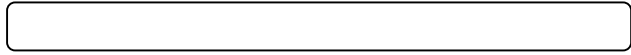
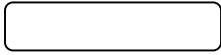
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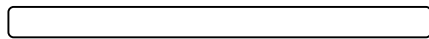
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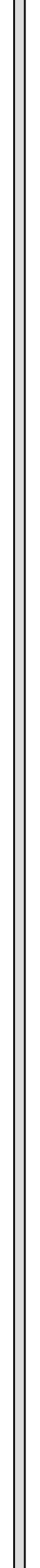
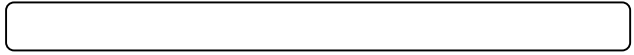
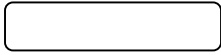
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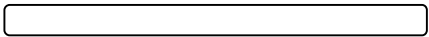
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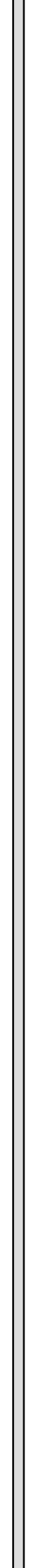
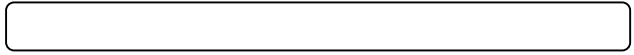
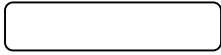
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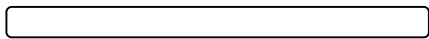
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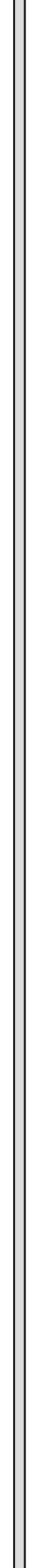
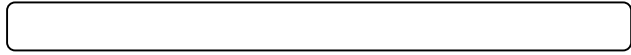
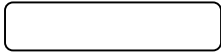
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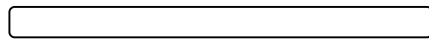
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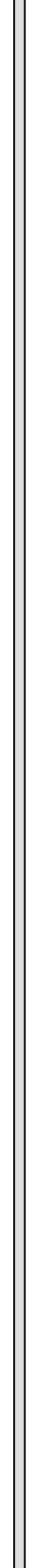
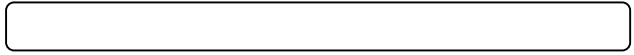
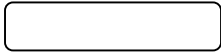
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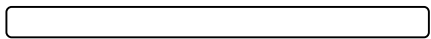
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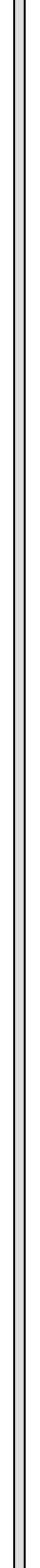
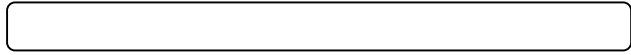
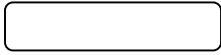
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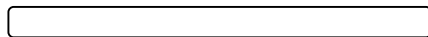
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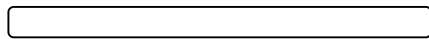
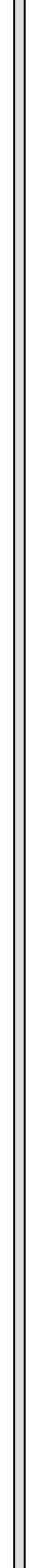
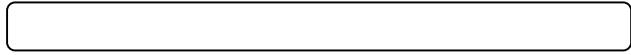
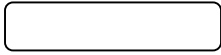
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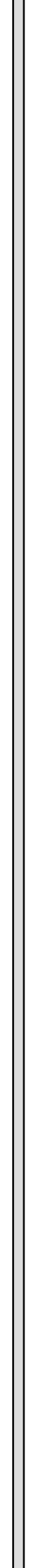
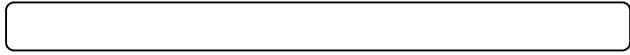
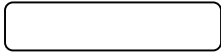
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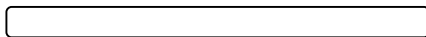
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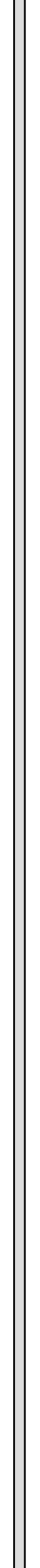
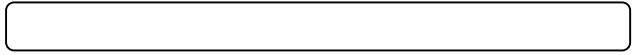
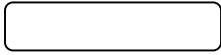


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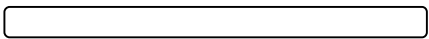
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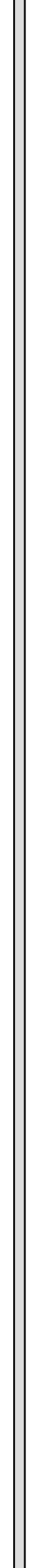
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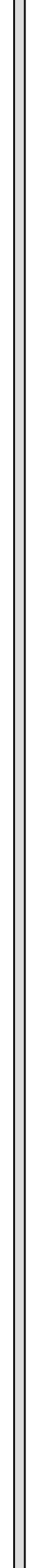
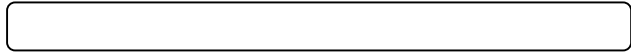
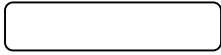
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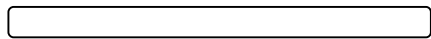
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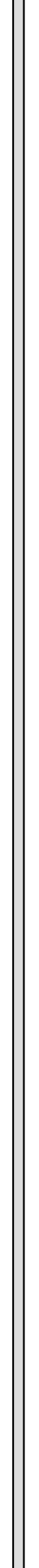
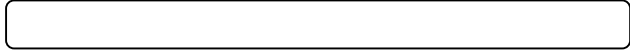
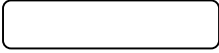
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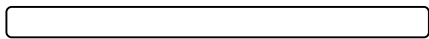
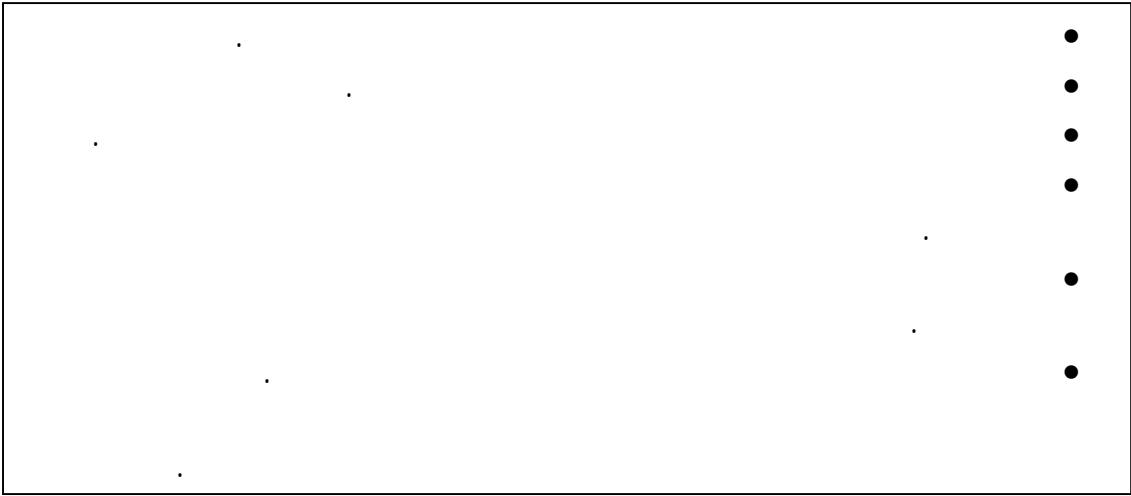


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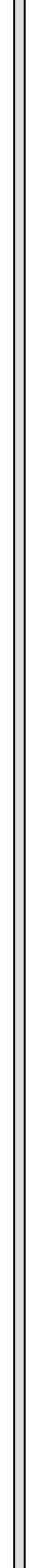
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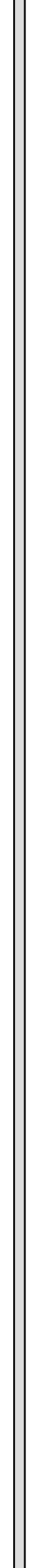


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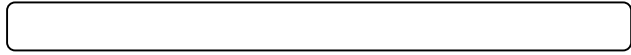
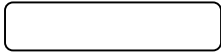
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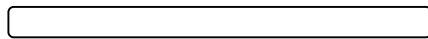
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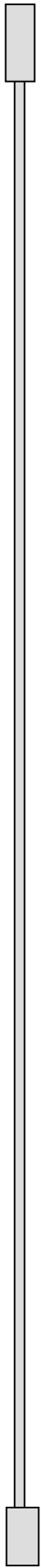
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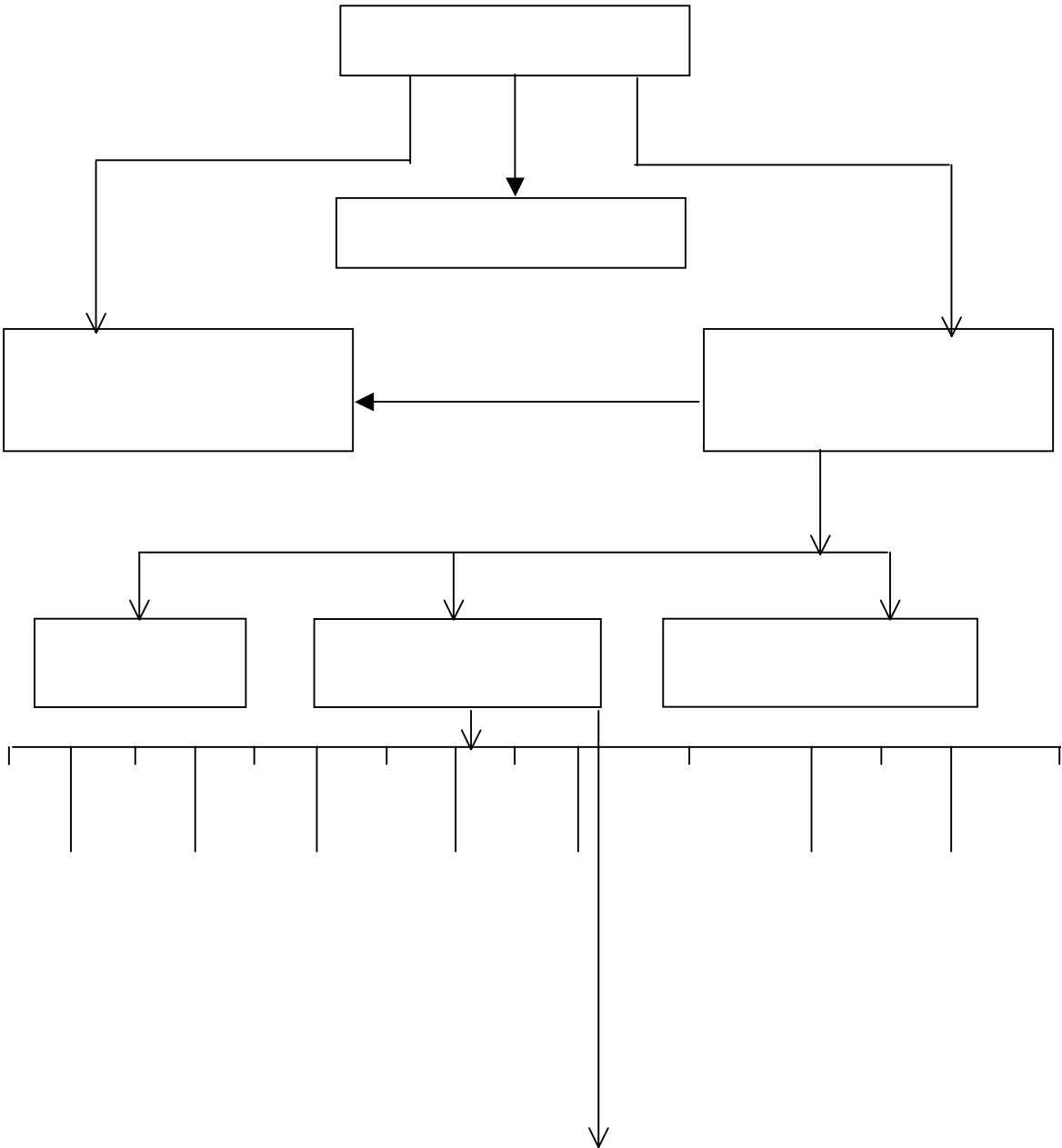




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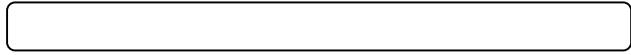
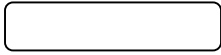
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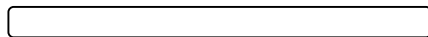
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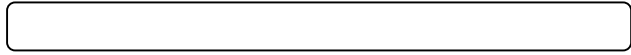
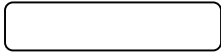
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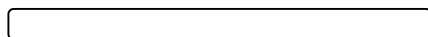
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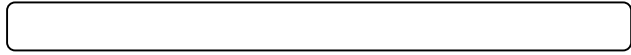
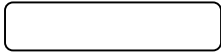
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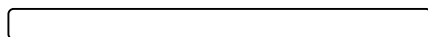
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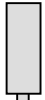


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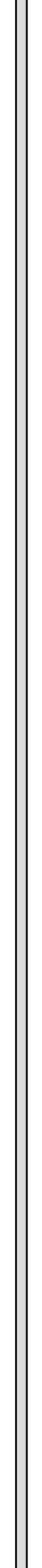
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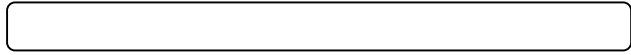
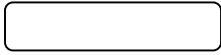
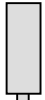
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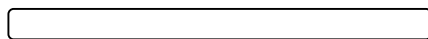
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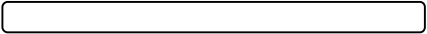
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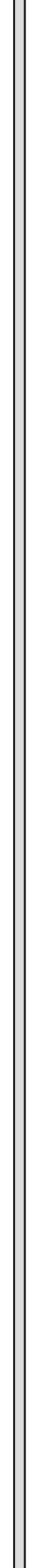
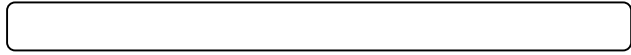
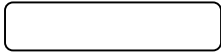
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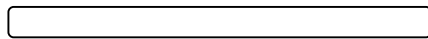


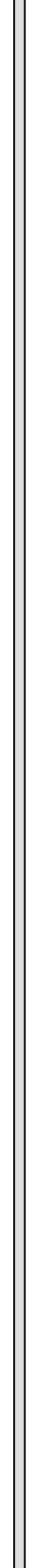
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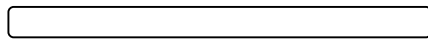
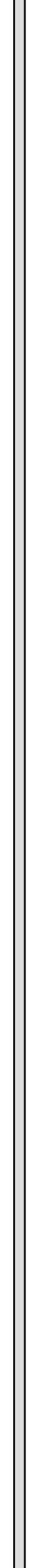
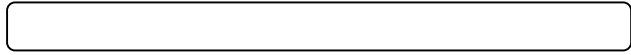
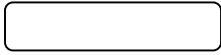


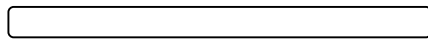
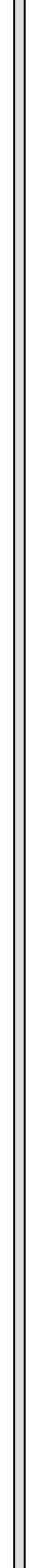
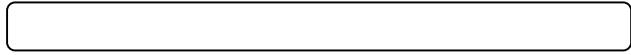
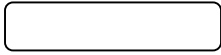


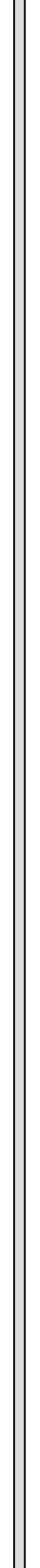
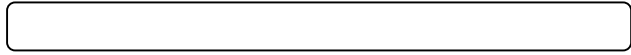
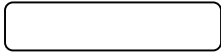
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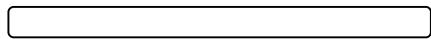
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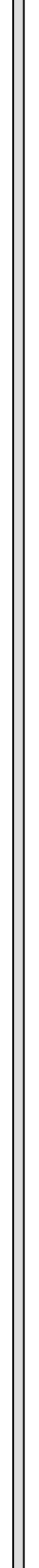
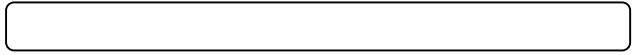
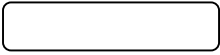
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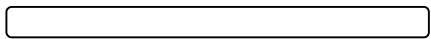
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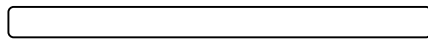
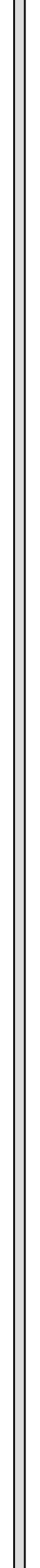
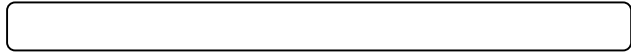
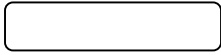
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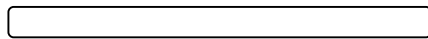
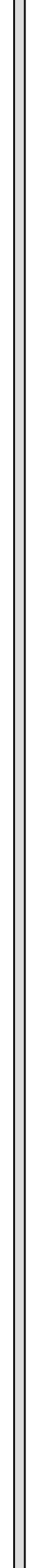
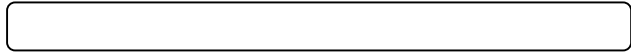
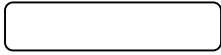




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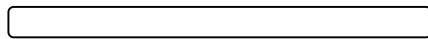
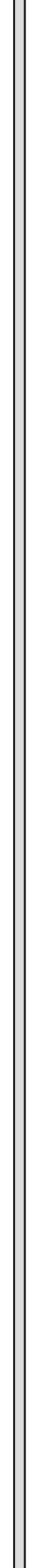
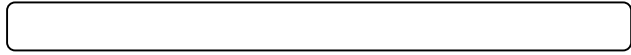
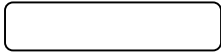


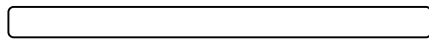
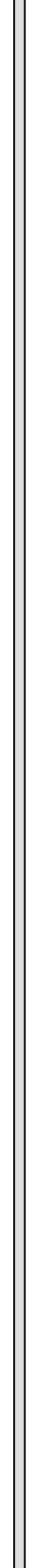
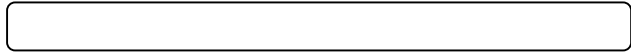
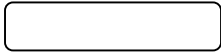


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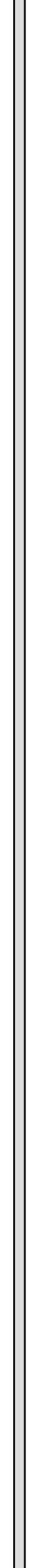
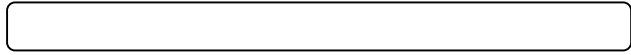
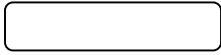
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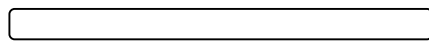
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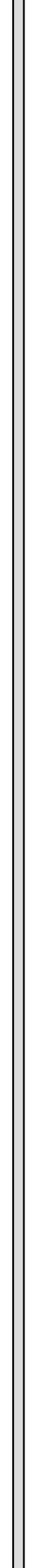
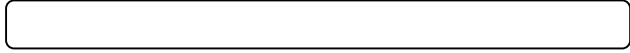
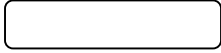
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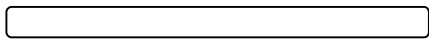


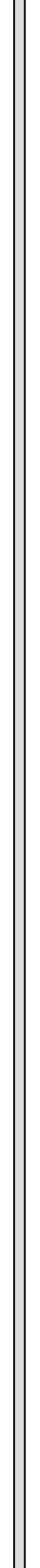
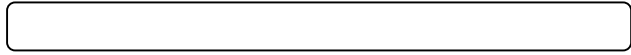
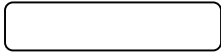


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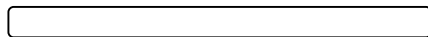
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SUMMARY

This study offers an overview of the current situation and an analysis of desertification in the Sudan. Several factors and natural events, in addition to human activities have accentuated natural resources deterioration, triggered land degradation and caused declined productivity in major agricultural production systems. The study drew attention to the excessive use of resources and particularly to the uncontrolled and irrational expansion of agriculture at the expense of plant resources. The occurrence of recurrent droughts in the past few decades has augmented this undesirable trend and accelerated the rate of desertification. It referred to the negative impact of poverty which induced over exploitation of natural resources, and the lack of appropriate policies to ensure sustainable management of natural resources. These conditions have been worsened by the lack of or insufficient legislation to support the conservation and rational use of resources and the limited enforcement of sectorial laws that exist. It stressed on the urgent need to review and streamline natural resources regulations to ensure their complementarily and to avoid contradictions.

The study indicated that attention to land desertification in the country has been first drawn during the thirties of last century when Stepping referred to desert creep while he was studying vegetation cover deterioration. His findings were further supported by the report of the Soil Conservation Committee. This report attributed land degradation to misuse of land resources. Presently desertified areas in the country are found in the thirteen states between latitudes 10 and 18 degrees north.

The Sudan has collaborated with and contributed to the international efforts to combat Desertification. It is one of the first countries that signed the

UNCCD and assigned the National Unit for Coordination of Programmes to Mitigate the Effects of Drought and to Combat Desertification as a focal point.

Realizing the importance and seriousness of desertification in the country and the need to address the problem of land degradation and as a response to the need to prepare a National Action Programme (NAP) to determine areas, priorities and strategies to enhance national efforts and policies, AOAD has agreed to collaborate with the Ministry of Agriculture and Forestry to prepare NAP as a framework that will ensure the integration and complementarity with national policies, strategies and development plans including government goals to achieve food security. The preparation of NAP is expected to assist the government in presenting its plans and lines of action to combat desertification and mitigate the effect of drought to the international community to seek assistance in a more effective manner.

The study comprises eight chapters. The first chapter provides background information on the present environment and natural resources conditions. It covers climate, renewable natural resources, energy and mining, special areas, land use, biodiversity and national heritage. It particularly focused on the importance of climate and its interaction with other natural features as topography and soils in determining ecological zones of the country with their characteristic plant resources, wildlife, biodiversity and agricultural systems. Attention has also been drawn to drought periods that inflicted the country in the recent decades and their negative impacts on resources, populations and the production systems upon which they depend.

The second chapter has been devoted to the analysis of impacts of socio-economic factors on the utilization of natural resources and on land degradation. The demographic characteristics and recent population changes since independence were highlighted. It referred particularly to the continuous

increase in human population and that, at the present rate of 2.6%, the population of the country will double every 28 years. It pointed out to the continuous increase in urban, decline in settled rural and the sharp decline in pastoral populations. Reference was also made to the conflicts and insecurity problems from which various parts of the country suffer and the resulting displacement of populations. It also referred to the conflicts and instability in neighbouring countries and their effects on resources as a result of the influx of refugees, some times with their livestock, into the country and the negative impacts and over-exploitation of natural resources.

Among other socio-economic factors the study referred to the relation between poverty and drought and desertification. It indicated that the pressure on natural resources is further exacerbated by poverty which added to resources over-exploitation and consequently degradation. It also described the role of rural women in the utilization of natural resources and their active involvement in agricultural activities. Attention has also been drawn to the increasing responsibilities rural women are shouldering in maintaining the household (H/H) particularly with the evident rise in the rate of migration of husbands and able males of the H/H, and loss of life due to conflicts and insecurity problems. Rural women have been forced, as a result of drought and desertification, to modify their strategies to produce and to make food available to the H/H.

The low efficiencies and limitations related to social services were mentioned. Drought and desertification resulted in low productivity and consequently limited returns to the local councils that are responsible for funding these services. Reference has also been made to the role of traditional institutions in conservation and control of the utilization of natural resources. This role has been weakened due to inappropriate policies as well as socio-

political reasons. The rich wealth of traditional knowledge and experience were also recognized and their value for conservation and rational use of resources emphasized.

Chapter three begins by reviewing types, causes and effects of land degradation in the country. It identified the main types of land degradation as (i) removal and destruction of vegetation cover by overgrazing, tree clearance and uncontrolled burning (ii) repeated cultivation of land without adequate fallow period to regenerate soil fertility (iii) monocultural cropping systems of sorghum or millet which exhaust the soil and (iv) irrational use of heavy machinery that has negative impact on the soil physical properties. Attention was also drawn to the weakness and in some cases lack of comprehensive land use planning. Land degradation is also evidenced by wind and water erosion symptoms and adverse effects as well as the effects of salinity and alkalinity. Physical manifestations of erosion as sediment loaded runoff, sedimentation of reservoirs, canals and dugouts, gullies and mobile sand dunes are obvious in many part of the country. The chapter covered soil pollution as a result of misuse of agro-chemicals as well as getting rid of waste materials and industrial wastes directly onto the land without prior treatment.

The underlying causes of land degradation are related mainly to (i) poor land management (ii) depriving land of its protective vegetation cover (iii) low efficiency of irrigation water management (iv) increasing human population that increases pressure on land resources to meet the rising food requirements and (v); drought that adversely affected vegetation cover, reduced agricultural production and increased pressure on forests.

Chapter four is a review of the main constraints, challenges, former efforts and policies since the thirties of last century. The study conducted by Stepping played a positive role to enhance policies particularly towards

forests. The efforts of several government departments to bring to attention the problem of pastoral groups and pastoralism were also highlighted. The programme to combat desertification and its component projects and interventions were discussed. A series of programmes and projects implemented through technical and financial assistance to improve land resources and production systems and to protect the environment were also listed.

Reference has been made to the economic problems of the country and the various attempts of the government to rectify them. It is clearly indicated that earlier efforts to re-orientate economic plans and to enhance economic performance were not simultaneously accompanied by attempts to address desertification and poverty alleviation. The study emphasized the political commitment of the government to combat desertification and remedy its adverse effects as reflected in the programmes adopted by various government agencies. Reference has also been made to the Comprehensive National Strategy and its emphasis on environmental issues, natural resources conservation and sustained development.

It is indicated that present policies to combat desertification are sectoral lacking the comprehensive and total approach in tackling this problem. The weakness of such an approach lies in the incomplete conceptualization of desertification : its magnitude, causes and dynamics as well as its consequences. In this way efforts to check and reverse the effects of desertification were fragmented.

It is interesting to note that in spite of its negative impacts, the occurrence of drought increased popular awareness about the seriousness and adverse effects of both drought and desertification. News media became more interested in these phenomena and their effects. The ultimate result has been

more attention given to natural resources conservation and addressing all types of land degradation. Although interest in and efforts to control desertification at both official and public levels are obvious yet they are hindered by certain limitations as :

- limited scientific understanding and explanation of drought and desertification and consequently comprehending their outcomes and impacts;
- the general weakness in policies and the sectorial and fragmented approaches to treat and remedy resources degradation;
- dominance of sectorial approach in planning and implementation of projects, and focusing mainly on biological solutions;
- insufficient funding of programmes to combat desertification;
- limited sustainability of interventions and approaches adopted by the various programmes and projects.

The study indicated that land use related government policies toward the traditional sector are governed and influenced mainly by traditional regulations and practices that have been rooted in tribal ownership and control over the land. Under these circumstances policies are inclined towards achieving balanced use on a broad geographical basis. Likewise they aim to achieve proper distribution of human and livestock populations to release pressure on natural resources. However, the situation is different when lands in the southern clay plains and valley lands are considered. There land degradation, as a result of misuse and which is also related to the lack of clear government land use policies, can easily be realized. It has been pointed out that uncontrolled expansion of mechanized farming and application of federal government system and the delegation of decision making responsibilities with respect to land use to the state level institutions are to be partly blamed

for land degradation. According to this system land distribution is taken locally, in most cases by local councils where tribal role is gaining importance. The result is mishandling of this responsibility and irrational utilization of the land.

The study referred to the institutional set-up and drew attention to the large number of national institutions and international organizations and NGOs involved in combating desertification. Their programmes, activities and interests are not particularly coordinated and effectively linked. This undesirable situation has been augmented by the lack of a comprehensive and effective framework to coordinate efforts and direct them to achieve goals sought. This situation is also related to the inherent weakness and limited abilities of the natural resources institutions that are awarded low priority in government budget and funding. Unfortunately the story is no better when the National Unit for Coordinating the Programmes for Combating Desertification and Mitigating the Effects of Drought is considered. It occupies a very low position in the set-up of MAAF which weakens the contact of the Unit with decision making authorities. The Unit is confronted by the lack of sufficient qualified staff, facilities and supporting policies and legislation to enable it to function satisfactorily. This situation is further worsened by poor or lack of coordination, positive interaction and complementarity between concerned institutions and organizations.

The constraints that reduced the efficiency in areas of research, education and training in the field of desertification were briefly discussed. This has been coupled by poor documentation and publication of research results and findings. Reference has also been made to the limited training opportunities due to weak institutional set-up and limited funding.

Financial resources needed to implement recommended programmes and

projects to combat desertification and enhance drought management are very limited. The government budget has not included desertification as an independent discipline in its activities. Funding in this regard is normally part of regular programmes of the natural resources administrations which are inflicted by serious shortage of funds and very limited budgets. In fact most efforts in the area of combating desertification have been supported by UN organizations programmes and projects.

In the area of legislation reference has been made to the various laws related to environment and natural resources including the Federal and Local Government Law. By far the most important thing to realize is the lack of a comprehensive natural resources law. Sectorial laws are contradicting and do not sufficiently streamline with the broad concept of the intimate link between environment and natural resources. Some of the laws mentioned are officially recognized and enforced on a wide scale. However, natural resources laws do not receive a similar level of enforcement due to the limited environmental awareness coupled with a limited presence of the concerned institutions at the field level. This undesirable situation has been accentuated by the instability of the traditional native administration which has been abolished then re-installed and subjected to various modifications. Legislation is further handicapped by weak or lack of extension and awareness efforts addressing both decision makers and the public. More than ever the need is felt to focus more attention on this issue and give it high priority in desertification programmes.

Chapter five provides an account of past experience and lessons learnt as reflected by programmes, projects and studies. Reference has been made to important landmarks in the efforts to check misuse and arrest deterioration of natural resources. It should be realized that former strategies and national

plans for combating desertification adopted indirect solutions by concentrating mainly on improvement of natural resources management and rational use. This approach has been encouraged by the large area of the country, the wide variability in its ecological zones and the low population density that characterizes most of its regions. As a result of this situation development policies were based on the assumption that availability of land is no constraint and on the expansion in the utilization of uninhabited lands in order to motivate people to develop such areas. This philosophy has been the basis for water provision programme and expansion of cultivated land during the past few decades. Although these latter programmes have some favorable effects yet they resulted in some negative impacts prominent among these have been excessive use of resources and land degradation.

At present there are limited programmes and projects to combat desertification and land degradation, mainly under the regular activities of the natural resources administrations. Few projects are being implemented through external assistance by UNDP/GEF on climate change, biodiversity and environment and biodiversity of the Dinder national Park; and by IFAD in southern and northern Kordofan for rural development. It should be noticed that political relations and the approach of some countries and funding agencies towards Sudan have resulted in limited funding of programmes and projects in the country and their support has mainly been confined to humanitarian assistance.

In chapter six a range of actions have been recommended. They included the following fields :

- a) Policies. Policies to combat desertification should be given high priority and should form an integral part of national policies. These latter policies should streamline with

international approaches and plans to combat desertification in order to encourage interaction and complementarity, enhance the exchange of information and experiences and to attract external assistance.

- b) Investment. Realizing that government resources are limited and cannot provide funds required by desertification related programmes efforts should be made to attract the private sector to contribute to the funding of such programmes. This may require the adoption of creative and motivating approaches. Furthermore use should be made to include these programmes in donors and technical assistance agencies strategies as well as in project finance cycles.
- c) Institutional Framework. In view of the relatively large number of institutions; organizations and NGOs involved in combating desertification and the wide distribution of responsibilities and tasks there is a pressing need to achieve complementarity of activities and coordination of efforts.

The present position of the National Unit for Coordinating Programmes for Combating Desertification and Mitigating the Effects of Drought under the Administration of Soil Conservation and Land Use reflects an insufficient understanding of the role and importance of the Unit.

This position deprives the Unit of autonomy and flexibility required to perform its functions at the national level. It is hence imperative to review the status of the Unit within the context of enhancing the overall role and commitment of the government to tackle the problem of desertification in the country.

Scientific research should be supported and strengthened by appropriate actions as the formulation of comprehensive research plan addressing the areas of drought and desertification and provision of funds and facilities. Similar efforts should be extended to enhance education and training as well as the establishment of a viable database.

In light of the importance of community-based and non-governmental organizations they should be encouraged and motivated to actively participate in programmes for combating desertification. Their efforts, field presence and close links with local communities should be employed to enhance popular participation and mobilization of community resources in support of these programmes.

Indicators and benchmarks are important to assess and monitor desertification and to follow-up NAP implementation. Hence a set of socio-economic, climatic, resources and other indicators have been proposed.

- d) Awareness and Popular Participation. In this regard the study focused on two priorities :
 - i) Enhancing awareness about the causes and consequences of desertification by initiating public awareness campaigns, organization of conferences, field discussion sessions and distribution of posters and leaflets. The support of news media should be sought to address the general public, schools, rural populations and decisions makers.
 - ii) Enhancing the role of local communities in planning, implementation, monitoring and evaluation of programmes

and projects is of paramount importance. Their involvement should come within the context of bottom up approach while concurrently making all efforts to benefit from traditional knowledge and experience.

- e) Mitigation of Drought Effects. A national strategy for drought periods should be formulated and adopted to assist affected communities, protect resources and to avoid or minimize the adverse effects of this phenomenon. The strategy should lead to the establishment of relevant committees and integration of NGOs and CBOs to form the central part of drought management mechanism at local and national level.

Chapter seven focused on an approach to support the implementation of remedial measures by taking the following actions :

- a) It is recognized that coordination between and among government institutions, bilateral and multilateral agencies, NGOs and others suffer from prominent gaps. This necessitates the establishment of a mechanism for consultation and coordination so that it can enhance complementarity and collaboration among these various groups which are interested in funding and implementing NAP and providing support to build national capacities and attract assistance and tap donors funds to finance programmes and projects that aim principally at combating desertification. The mechanism will comprise a coordination committee representing all

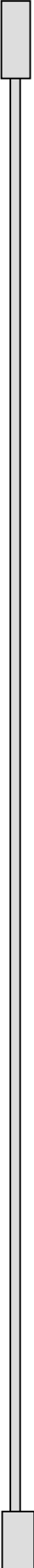
relevant institutions and organizations, and a technical secretariat that will be responsible for organizing meetings to discuss the mechanism strategy, work plan and approach to implement its programme of work.

- b) An independent national fund for combating desertification has also been proposed to act as a link between institutions, local and international organizations concerned about desertification and identifying and attracting funds to support programmes to combat this phenomenon. The fund should have its own board of directors and an executive unit to form the link between the board of directors and institutions and projects that are supported by this fund. It is anticipated that the fund resources will come from both local and external sources.
- c) Local communities and NGOs should participate in the evaluation of projects to combat desertification and mitigate the effects of drought. Their contribution is visualized as a direct support to efforts of government institutions whose limited field presence and meager facilities cannot allow them to cover all areas and activities.
- d) promotion of collaboration with neighbouring countries for the formulation and implementation of joint programmes and projects to address urgent problems and critical areas as for instance watersheds, border grazing lands, seasonal water courses and rivers and groundwater aquifers. The proposed

collaboration should also cover the establishment of a database, information networks and working groups to achieve specific goals based on acceptable terms and implementation procedures.

The eighth chapter has focused on actions in the form of programmes and projects within the context of NAP. This has been done in accordance with the goals of CCD that calls for taking necessary actions to enhance government institutions capabilities in the fields of combating desertification and mitigating the effects of drought. The programmes and projects have also drawn upon the proposals submitted by the affected states and what has been recommended by relevant studies and workshops. In addition use has been made of the directives of the Comprehensive National Strategy and the guidelines of the Agricultural Sector Strategy (2002-2027) now under preparation. Programmes and projects proposed at the state and national levels are broad ideas and outlines that can later be expanded and detailed to prepare draft documents suitable for funding. Sub-regional and regional ones have also been proposed to make use of accumulated experiences and to join efforts to achieve sustained management of shared resources and to check land degradation and mitigate the effects of drought. All these proposals are seen as part of a long-term strategy which ensures that NAP is in harmony with and forms an integral component of the national efforts to achieve food security and sustainable development. This strategy is anticipated to be founded on several principles as for instance social acceptance, realistic objectives, community participation and coordination between concerned parties and stakeholders. Its specific objectives include the following :

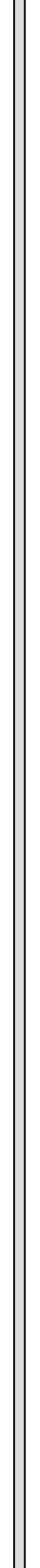
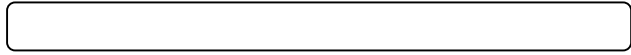
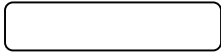
- addressing causes of desertification particularly socio-economic factors,

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- enhancing local communities capabilities to rationally manage and utilize their resources,
 - diversification of local production systems and improvement of their performance,
 - effective employment of the capabilities and experiences of NGOs and CBOs.
 - improvement of the working environment and building the capacities of relevant government institutions at the state and national levels.
 - encourage more collaboration and coordination between existing projects to achieve more complementarity and integration of activities.
 - support the formulation of a national drought strategy and enhance both national and local capacities to tackle droughts and check their negative impacts.

The strategy will give the following areas and issues high priority :

- protection of undesertified lands,
- pay more attention to the perception of and problems and priorities identified by local communities.
- empowering these communities and enhancing local planning,
- determine the most deteriorated sites to be included in ecological rehabilitation efforts,
- taking into account other relevant national plans,
- consider costs and possible returns of proposed programmes and projects.

The chapter offers a series of benchmarks and indicators to assist in monitoring progress of programmes and projects, and the fulfillment of the objectives set.



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