

SUSTAINABLE DEVELOPMENT WORK SHOP

Sustainable Urban development forum

SUDF



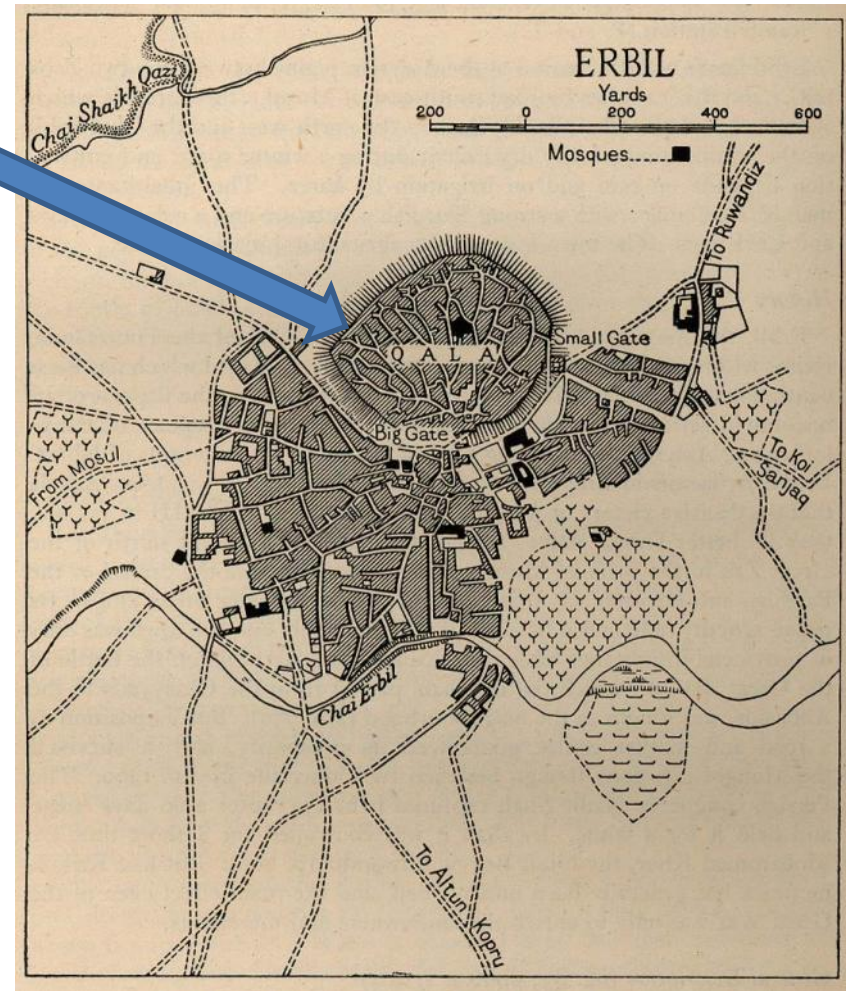
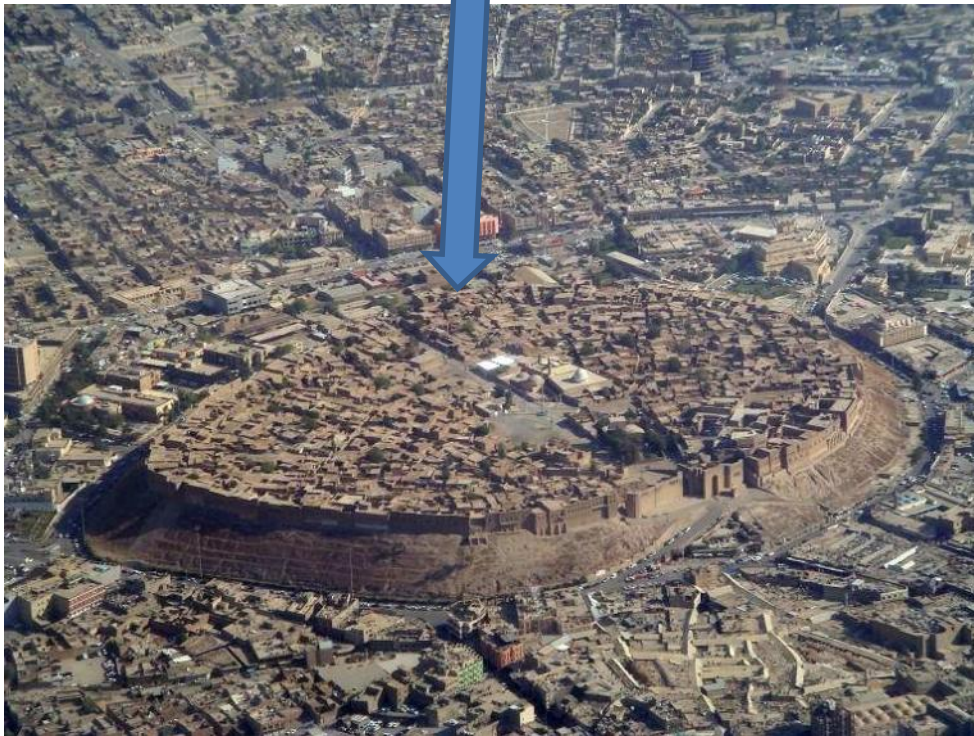
Uncontrolled Urban Growth in Kurdistan

Dr. Mahmood Khayat

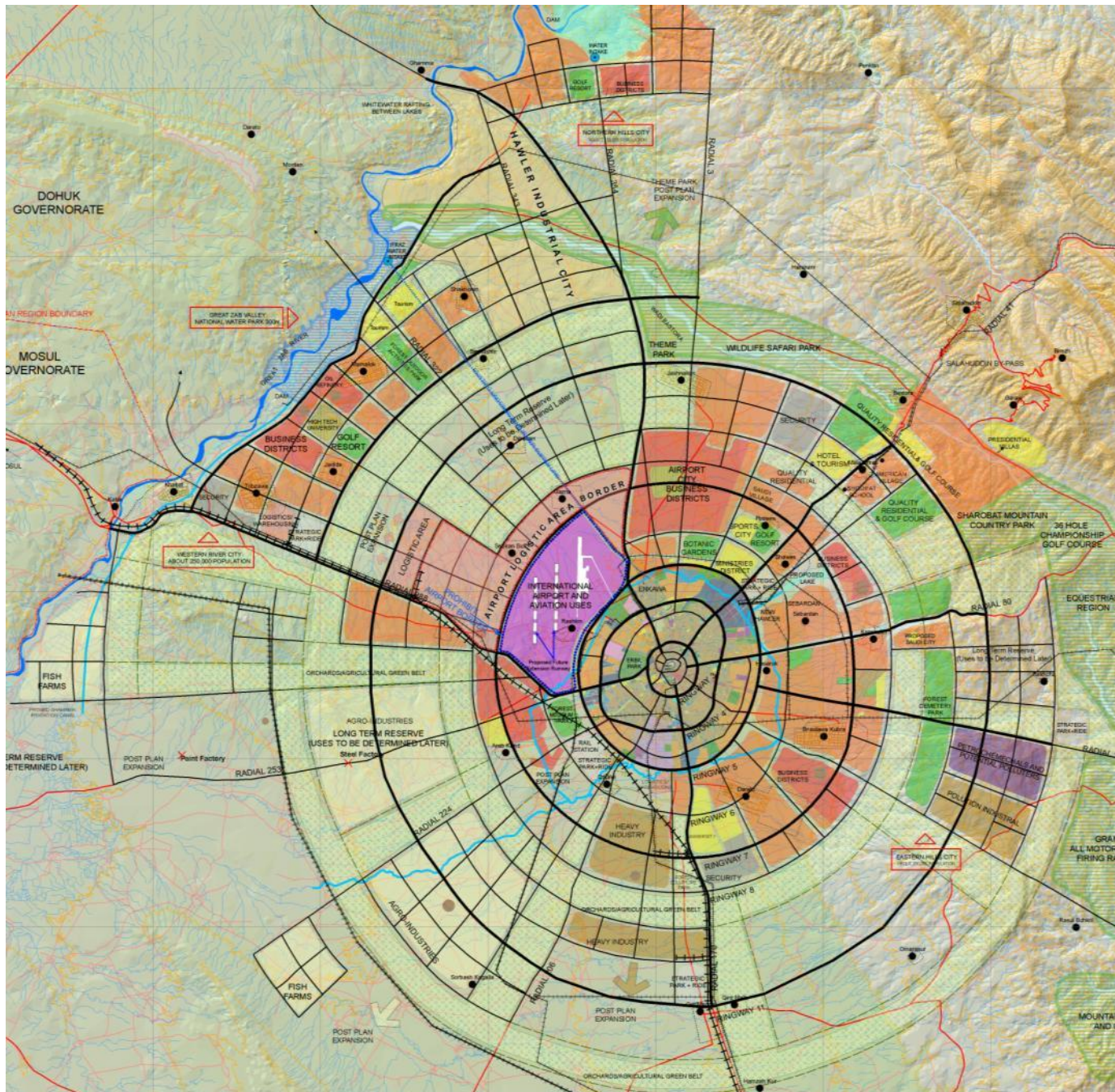
Department of Architecture-College of Engineering-
University of Salahaddin

A City with Less Than One Kilometer Diameter

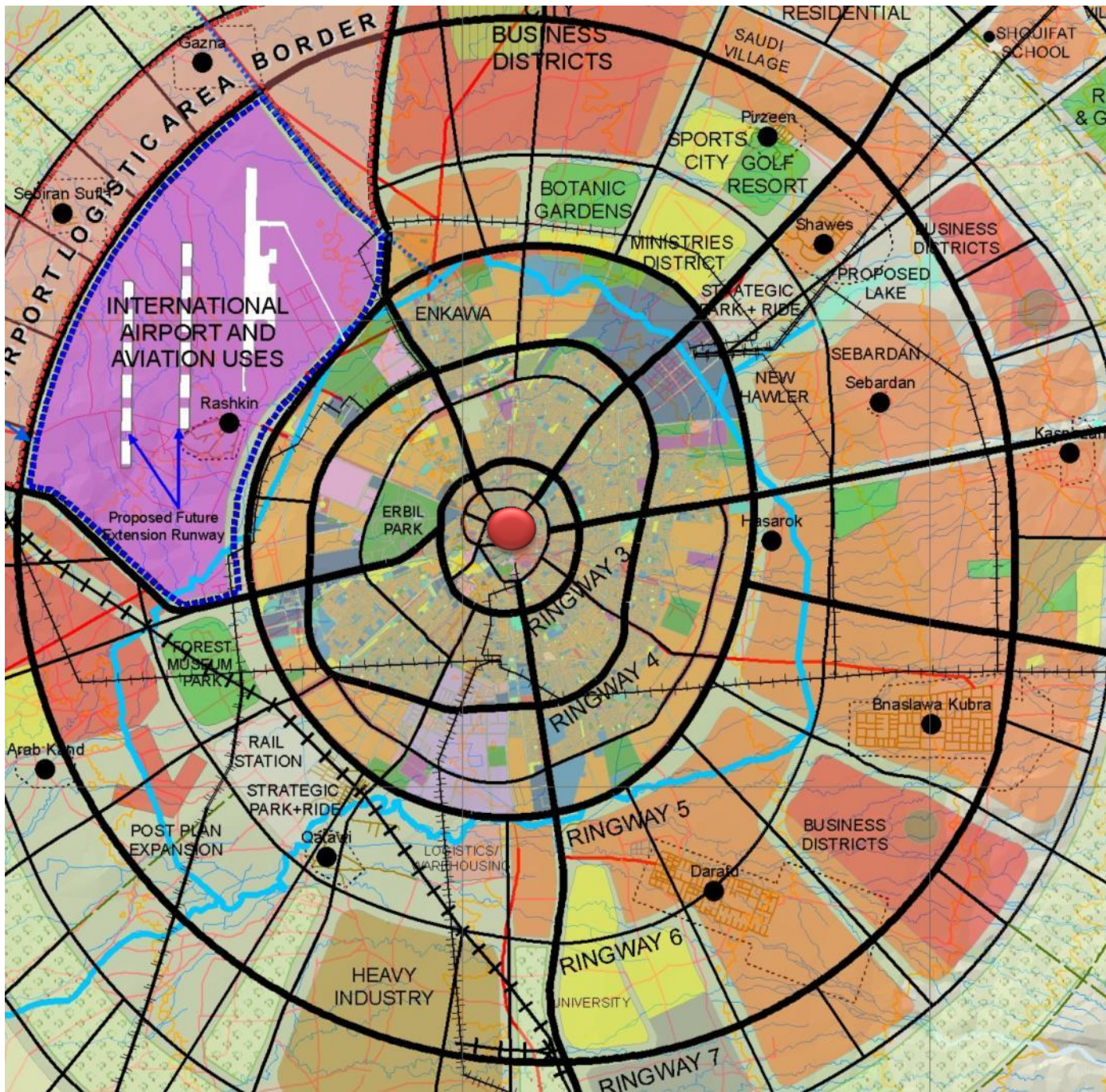
**The citadel
400 m. Diameter**



Erbil City in 1944

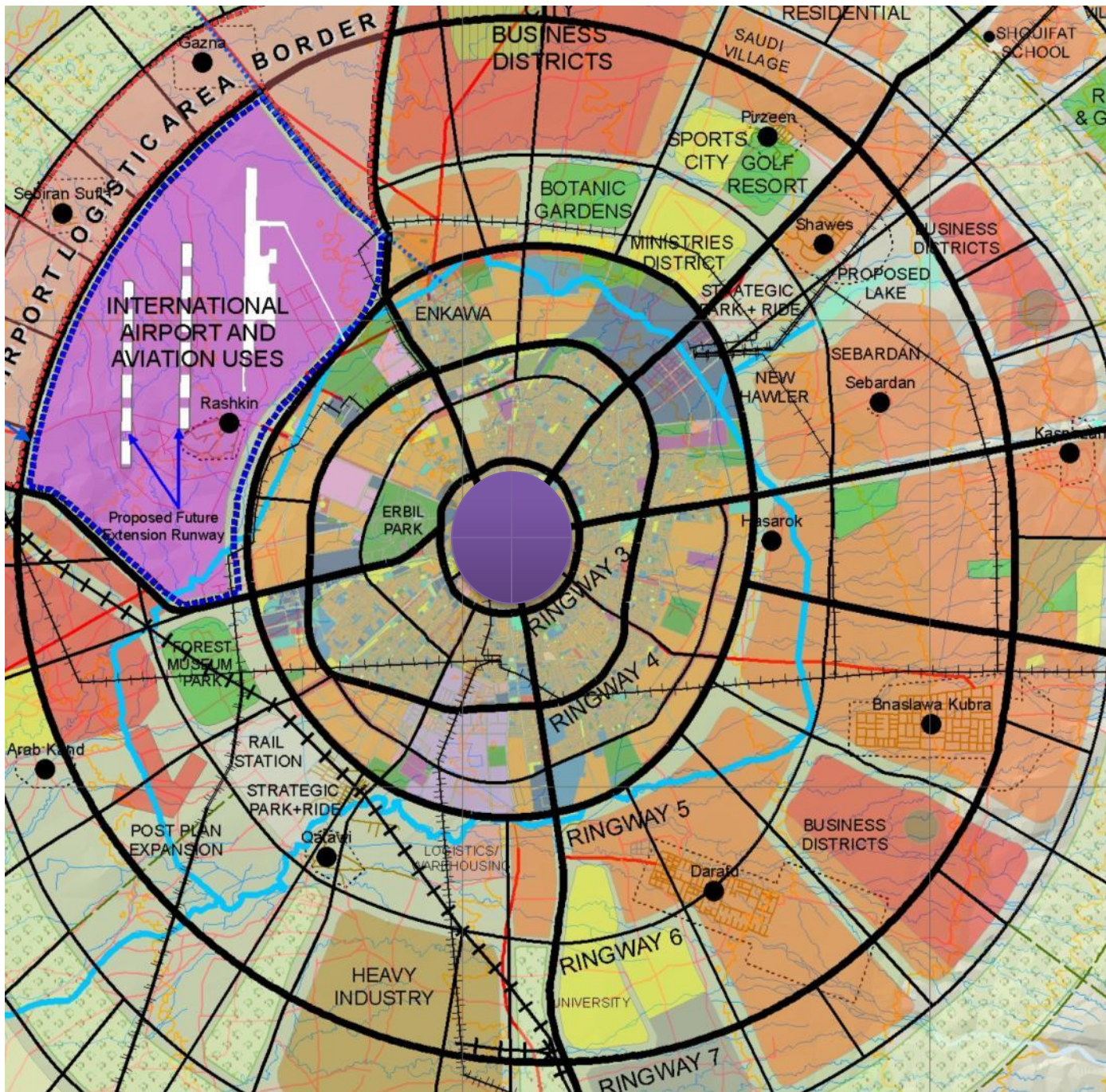


**2007
Master plan
proposal
suggested
that on
2030 the
greater
Erbil city
will be
more than
50
kilometer
diameter**



1944

Erbil city size in relation to the proposed size in 2030



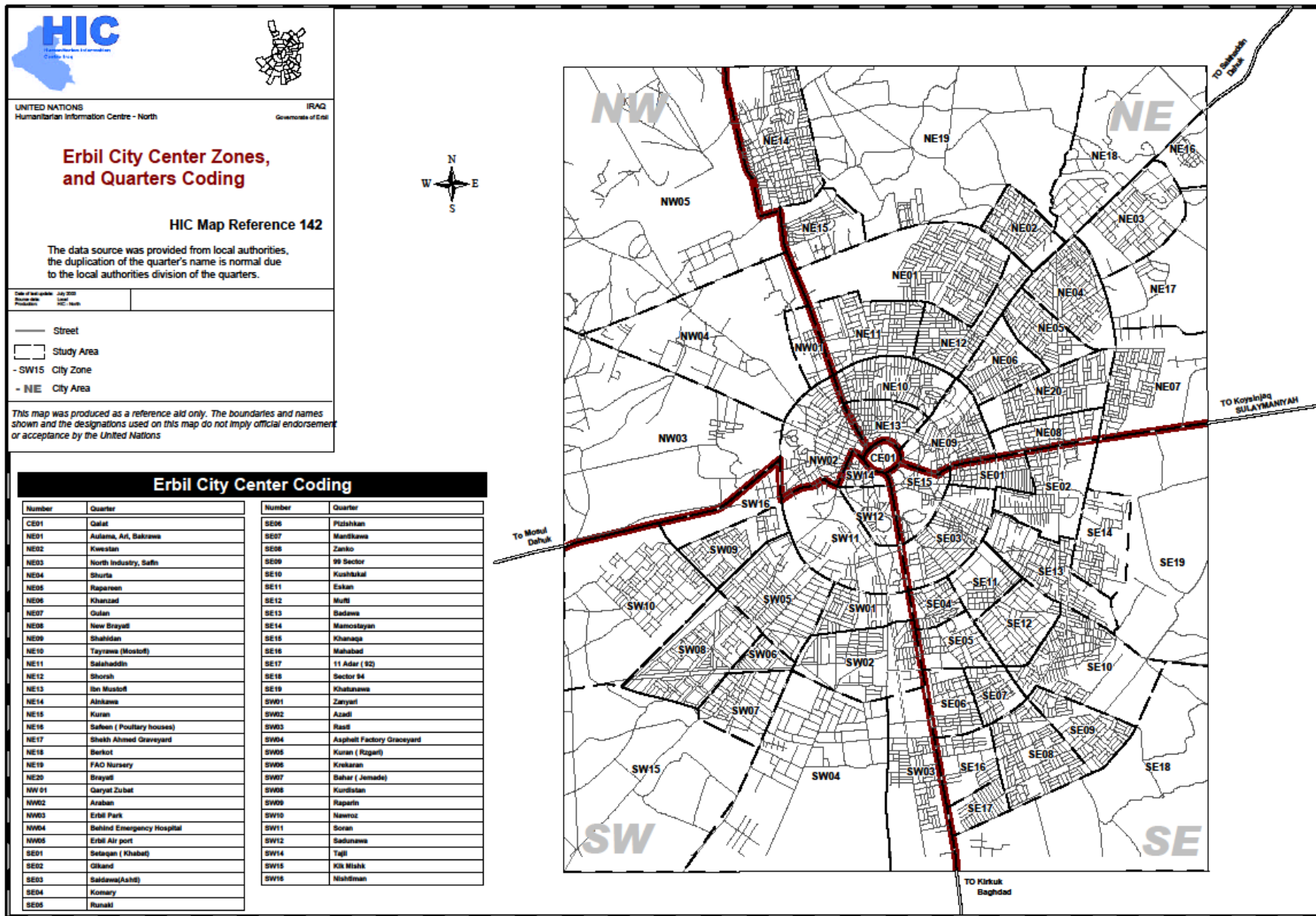
1970

3rd ring
(60 street)
road was
the outer
skirt of
the city

size in
relation to
the
proposed
size in
2030

UNITED NATIONS

Humanitarian Information Centre – North July 2003



UNITED NATIONS
Humanitarian Information Centre - North

IRAQ
Governorate of Erbil

Erbil City Center Zones, and Quarters Coding

HIC Map Reference 142

The data source was provided from local authorities, the duplication of the quarter's name is normal due to the local authorities division of the quarters.

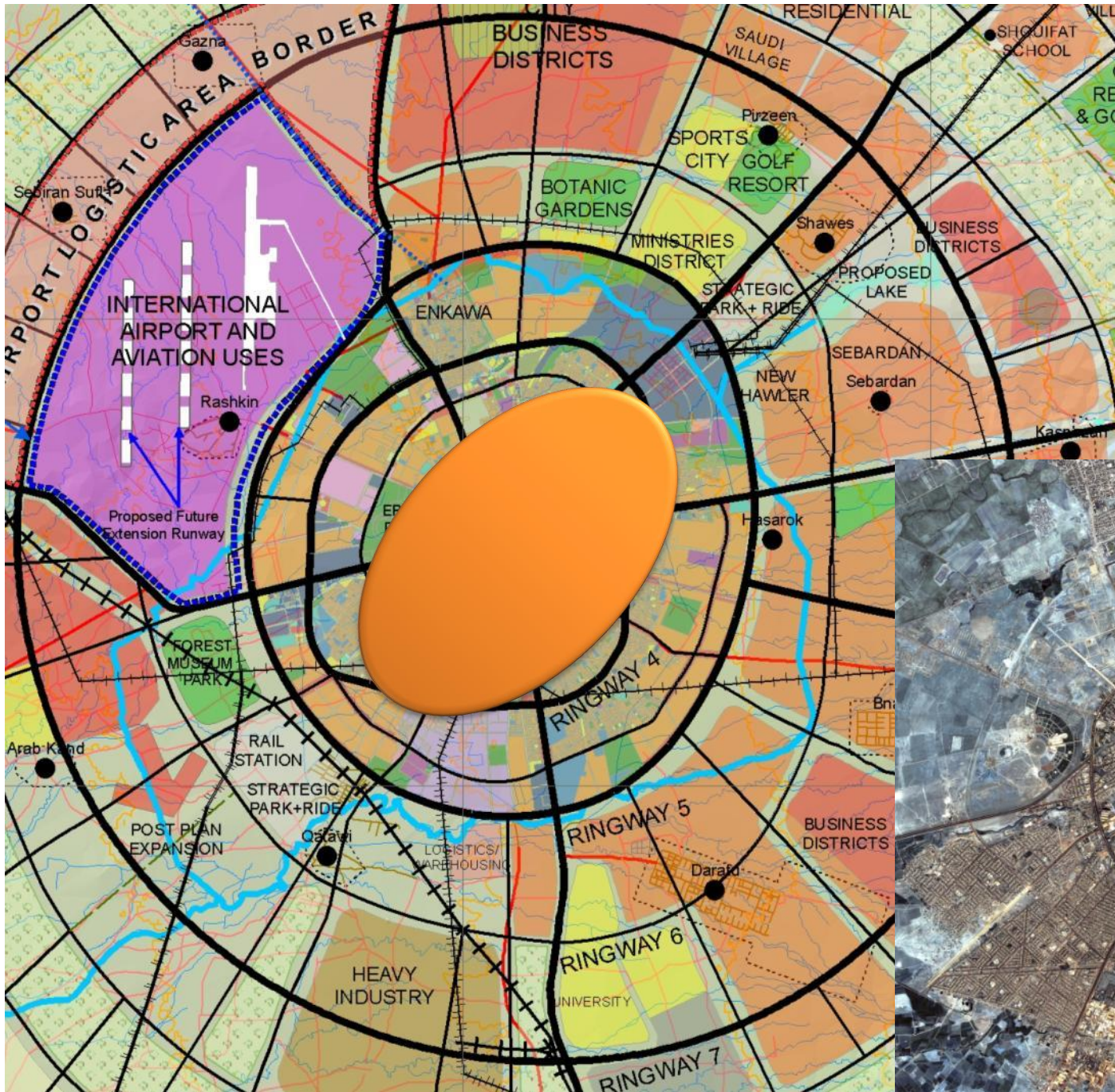
Date of this update: July 2003
Revision: 1001
Author: HIC/UNHCR

- Street
- Study Area
- SW15 City Zone
- NE City Area

This map was produced as a reference aid only. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations

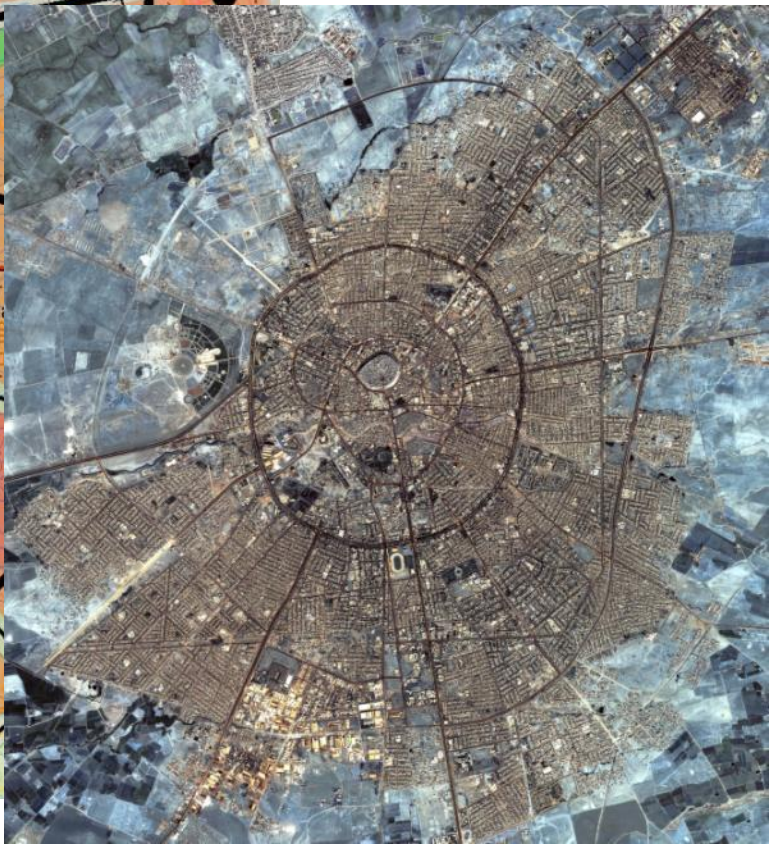
Erbil City Center Coding

Number	Quarter	Number	Quarter
CE01	Qalat	SE06	Pizhikan
NE01	Aslama, Ar, Bakrawa	SE07	Mardkawa
NE02	Kawstan	SE08	Zanbo
NE03	North Industry, Safn	SE09	99 Sector
NE04	Shura	SE10	Kashkhal
NE05	Rapareen	SE11	Eskan
NE06	Khanzad	SE12	Muff
NE07	Gulan	SE13	Badawa
NE08	New Brayat	SE14	Manostayan
NE09	Shahidan	SE15	Khanaga
NE10	Tayrawa (Mostof)	SE16	Mahabad
NE11	Salahaddin	SE17	11 Adar (92)
NE12	Shorah	SE18	Sector 94
NE13	Ibn Mustof	SE19	Khatunawa
NE14	Alkawa	SW01	Zaryari
NE15	Kuran	SW02	Azadi
NE16	Safwan (Poultry houses)	SW03	Rasdi
NE17	Sheikh Ahmed Graveyard	SW04	Asphalt Factory Graveyard
NE18	Berkot	SW05	Kuran (Rizgar)
NE19	FAO Nursery	SW06	Krakaran
NE20	Brayat	SW07	Bahar (Jemade)
NW01	Garyat Zabat	SW08	Kurdistan
NW02	Araban	SW09	Raparin
NW03	Erbil Park	SW10	Nawroz
NW04	Bahled Emergency Hospital	SW11	Soran
NW05	Erbil Air port	SW12	Sadunawa
SE01	Setaqan (Khabat)	SW14	Taji
SE02	Gikand	SW15	Kik Mlahk
SE03	Saldawa(Ashd)	SW16	Nashfman
SE04	Komary		
SE05	Runaki		



2003

4th Ring
way
Established



7th ring way

1944

1970

2003

2011





Kurdistan Regional Government-Iraq

Investment Board

Information and Studies Department

Directorate of Information

List of Licensed Projects in Kurdistan Region

According to law no. (4), 2006

From : 2006/08/01 to 2011/09/30

Investment Board

Information and Studies Department

Directorate of Information

Licensed Projects: Under implementation

From : 2006/08/01 to : 2011/09/30



Kurdistan Region

Sector: All Sectors

Investment Type: All

Country: All

Table No (3)

Investment By Investment type_Capital In Million Dollar

Investors' Nationality	Erbil	Sulaimaniya/Erbil	Sulaimaniy	Duhok	Total	%
Foreign	1,611	150		509	2,269	14.22%
Joint Venture	322		343	30	694	4.35%
National	7,710		4,442	838	12,990	81.42%
Grand Total	9,642	150	4,785	1,377	15,954	100.00%

Year's Capital In Million Dollar by Investment Type

Year	Capital In Million Dollar	by Capital %
2006	438.308	2.75%
2007	3,963.363	24.84%
2008	1,814.256	11.37%
2009	3,929.171	24.63%
2010	4,758.997	29.83%
2011	1,050.095	6.58%
Grand	15,954.190	100.00%

Investment Board

Information and Studies Department

Directorate of Information

Licensed Projects: Under implementation

From : 2006/08/01 to : 2011/09/30



Kurdistan Region

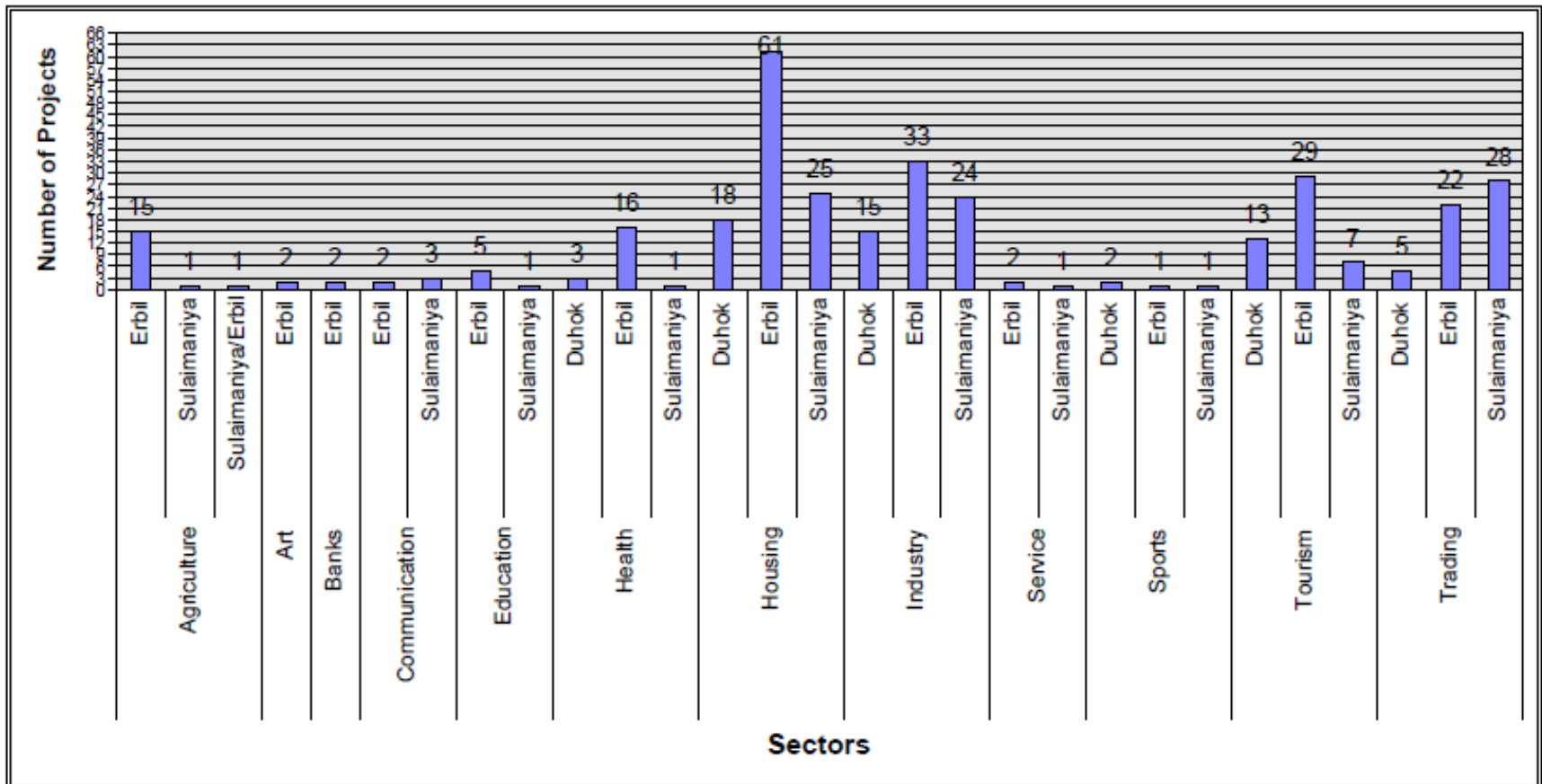
Sector: All Sectors

Investment Type: All

Country: All

Figure No (1)

Number Of Licensed Projects By Sectors



Investment Board

Information and Studies Department
Directorate of Information

Licensed Projects: Under implementation

From : 2006/08/01 to : 2011/09/30



Kurdistan Region

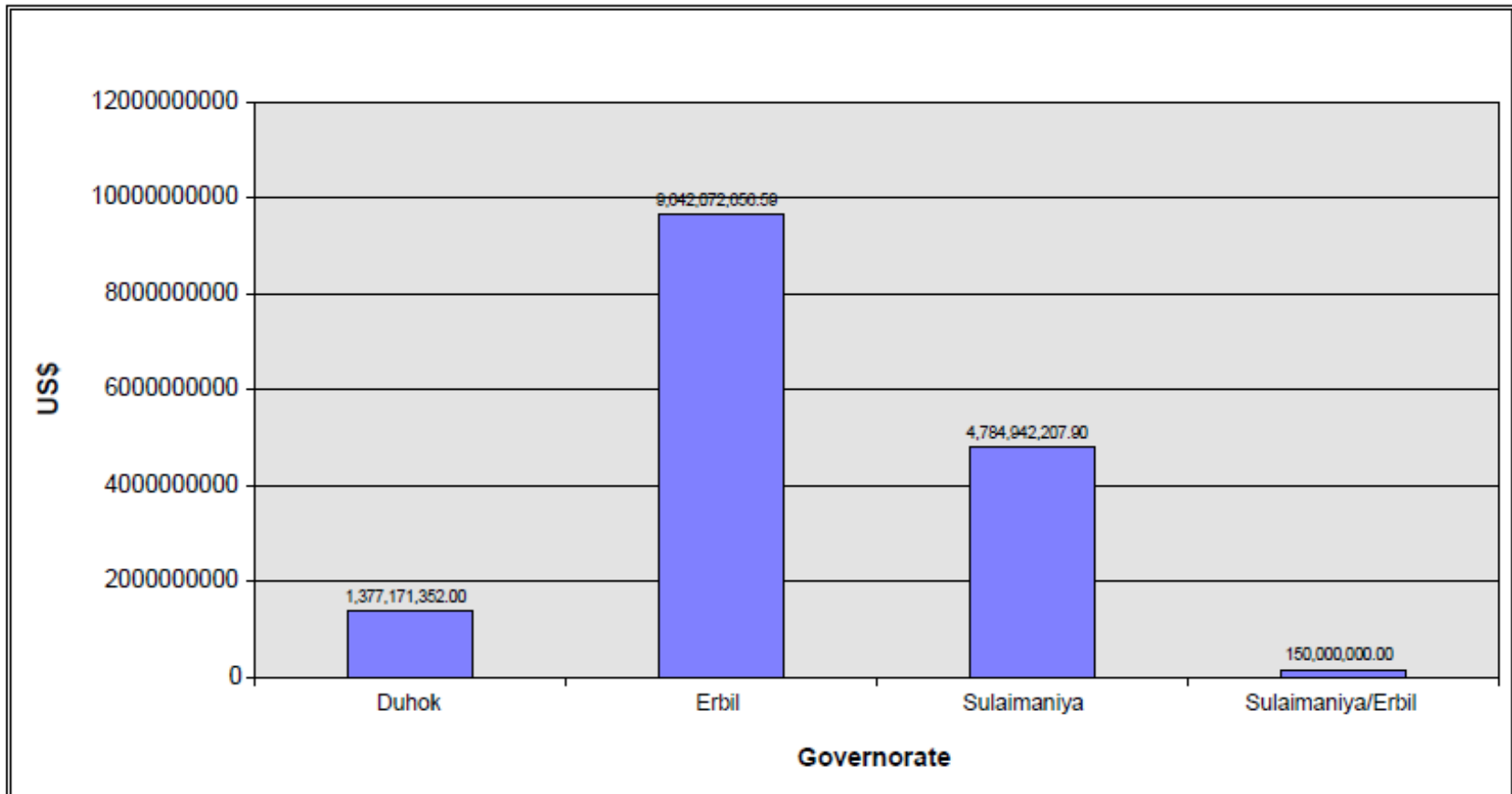
Sector: All Sectors

Investment Type: All

Country: All

Figure No (2)

Investment By Governorates_Project Capital In US\$



This rapid development

1-Solved housing problems

2-Created jobs

3-Attracted Local and International Investors

4-Highlighted the City and the region Internationally

5-Raised the living standards in the Region

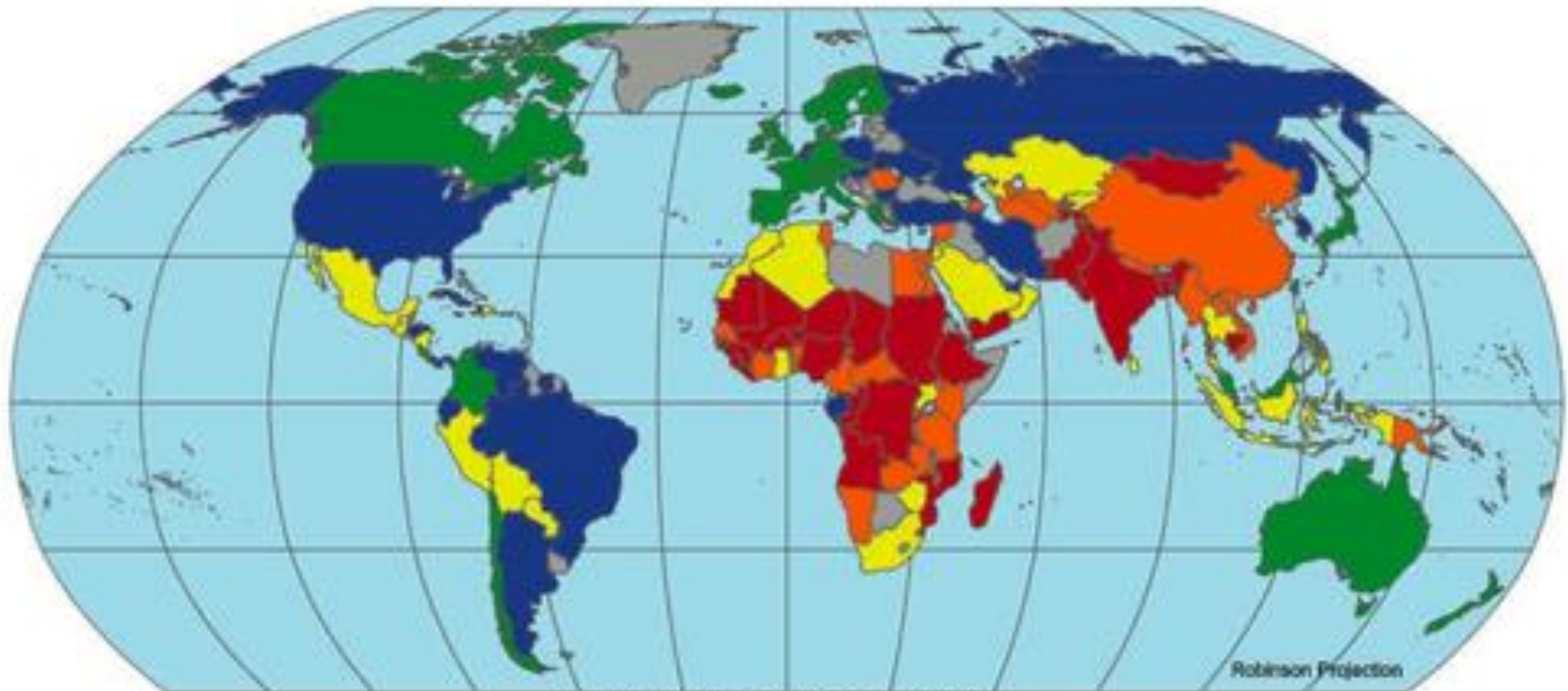
And many other positive points

But this non properly controlled Rapid Urban Growth had impacts on Built and non Built Environments

Such impacts can be detected by indexes such as

the **Yale university** EPI index provides a powerful tool for steering individual countries and the world toward environmental sustainability.

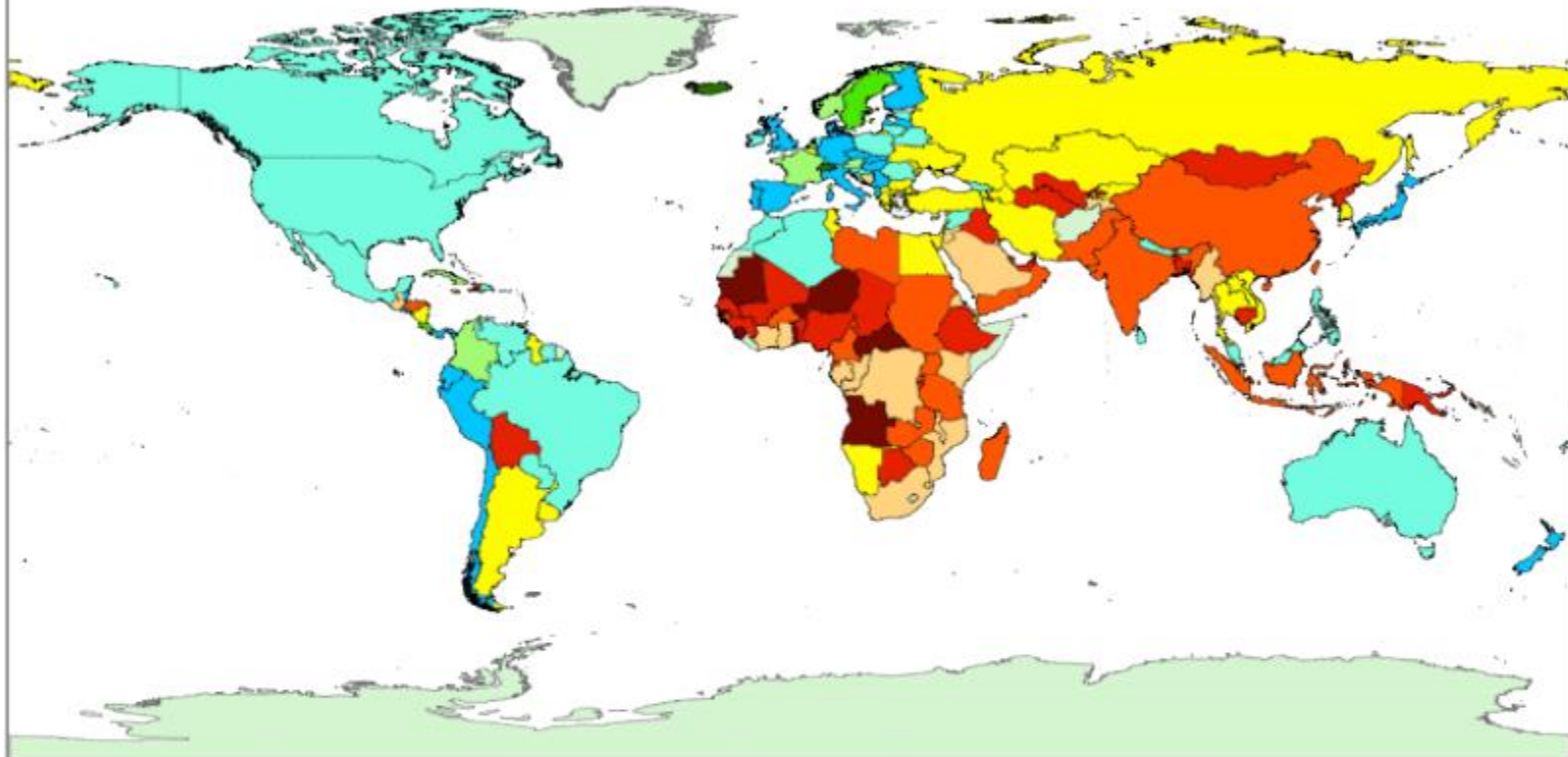
Pilot 2006 Environmental Performance Index



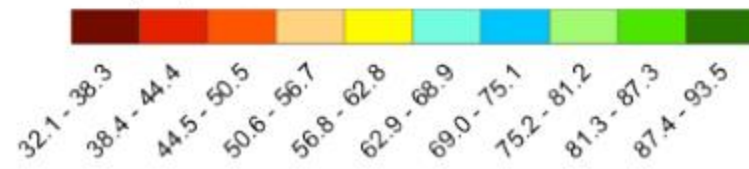
Overall EPI Score by Country Quintile



2010 ENVIRONMENTAL PERFORMANCE INDEX



2010 EPI, equidistant intervals



The department of Architecture vision is to have

Our Country

Our Region Kurdistan

And Our City Erbil

Available in such Indexes with a Positive Impact on Environment locally and on the level of the Globe

Such local problems can be treated by international knowledge, Methods and expertises

This Forum and the coming Conference may lead the Region towards more Awareness about Environment and adopting more Sustainable Policies

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THANKS

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