

# Climate Change: Geography Curriculum Review and Recommendations

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# Geography Curriculum Review and Recommendations for Classes VI-VIII

This review of the curriculum was carried out by **Zeeba T. Hashmi** to assist Center for Social Justice in developing feedback and recommendations for improvement in Single National Curriculum as sought by National Curriculum Council in 2021<sup>1</sup>. The curriculum for classes VI-VIII advertised by the Ministry of Federal Education and Professional Training on its website was used for the analysis.<sup>2</sup> The short study was carried out to assess if SNC is adequately addressing educational concerns for peace-building, human rights, and inclusiveness in Pakistan's context.

For this purpose, the following parameters were used to understand the extent and scope of the integration of peace values in the curriculum:

- 1. civic values imparted from content
- 2. reflection of diversity of religions and cultures
- 3. gender representation
- 4. relevance and rationality of approach (for recommendation)

# 1.1 Geography Curriculum Overview

The geography curriculum generally presents an opportunity for the learners to make sense of the world around them and be able to explore solutions for the global, regional or local issues that affects all of us in one way or another. It also prepares them to understand the concept of "global citizenship education". An outcome document on this emerging concept has already been prepared by UNESCO, which stresses on teaching not only cognitive skills and competencies to the learners, but also on enabling them to polish their attitudes and behaviors and communications skills<sup>3</sup>. The subject of geography has a strong potential to offer this rich value to the learners, only if rationally imparted.

Global SDG indicator 4.7.1: "Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in:

- (a) National education policies,
- (b) Curricula,
- (c) Teacher education and
- (d) Student assessment."

<sup>&</sup>lt;sup>1</sup> To access SNC Geography, follow the link: <u>Ministry of Federal Education and Professional Training (snc.gov.pk)</u>

<sup>&</sup>lt;sup>3</sup> UNESCO Global citizenship education: an emerging perspective, 2013. https://unesdoc.unesco.org/ark:/48223/pf0000224115

The draft curriculum at hand also aspires to develop skills for "effective inquiry and communications", along with other values to help learners "broaden their perspectives" and application of scientific knowledge of geography in relation with the society while inculcating a strong sense of "citizenship" (both local and global)<sup>4</sup>.

To understand whether the aims and objectives of this curriculum are transmitted to its content, this review was undertaken under the scope of the civic values; religious and cultural diversity; and, gender representation. Besides these three parameters, this review also enquired after the local or regional reference points used, if any, for the learners. It is important to impart social consciousness on the dynamics of populations and geography not just in our local and global context, but also in our immediate South Asian region as well. It is crucial for our learners because many changes in the climate, the geo-political and economic trends along with resource-scarcity issues are familiar, and this can be used as an opportunity to introduce more relatable case studies and region-specific examples that can develop an interest for the subject in a broader perspective.

#### 1.2 Summary of the topics/Concepts provided in Draft Geography Curriculum for VI-VIII

Geography curriculum comprises of three domains as follows:

- Physical Geography with three standards (earth processes & patterns, weather & climate, and natural, capital & human resources)
- Human Geography with five standards (uses of land forms, settlements, scarcity vs. resources, cultures of settlements, role of science and technology in development)
- Environmental Geography with three standards (environmental changes, managing and changing environments and patterns of global economic interactions)

Total Units assigned to each class are six, which are divided into 160 SLOs (Class VI has 53 SLOs, Class VII has 46 and Class VIII has 61 SLOs assigned)

## Curriculum at a glance

Out of a total 160 SLOs, 75, i.e. nearly 47% incur civic values (categories found are lifestyle and economic diversity, global citizenship, citizen/social responsibility, social development) as mentioned in Annexure A.

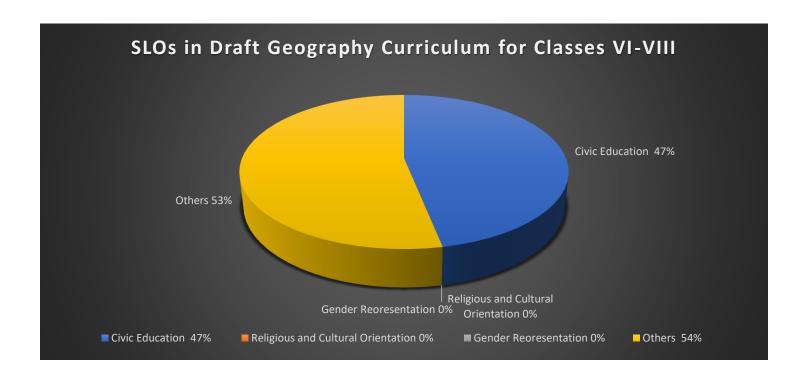
The class-wise distribution of the civic values reveals the following

- In class VI, 13 SLOs out of 53 promote civic education and values (24.5%).
- In Class VII, 22 SLOs out of 46 promote civic education and values (47.8%)
- In Class VIII, 40 SLOs out of 61 promote civic education and values (65.5%)

<sup>&</sup>lt;sup>4</sup> Zero-draft, Single National Curriculum, Geography for Grades VI-VIII: https://sncfeedback.org/snc\_geography\_grades\_6\_8

It must be noted here that no SLOs have been found in terms of religious and ethnic identities. Also, no SLO has indicated the necessity of gender parity in concepts introduced on human resources, human settlements or the economic and human development metrics.

53% of other SLOs relate to concepts on Physical and Environmental Geography which do not show any direct correlation with human or social activity.



### 1.3 Points of Concern in Geography Draft Curriculum

# 1.3.1 Concerns with Learning Objectives, Knowledge and Skills

# a. Problems in Units assigned for class VI

*Unit 5, Natural Disasters, class VI*: The topic on Natural Disasters is an important topic for sensitization purposes. However, only causes for natural disasters are mentioned, whereas the unit leaves out a conversation on the <u>impacts and the losses to humans as a result</u>. This concept can be augmented by introducing more human-centric topics such as human migrations and displacements, loss of lives, livestock and livelihoods as serious consequences of disasters. Furthermore, an orientation to <u>disaster risk reduction</u> should be included with examples from around the world

#### b. Problems in Units assigned for class VII:

*Unit 1, Plains and Rivers, Class VII:* Learning activities mentioned are incomplete. Although SLOs of this unit mention about human settlements, but the knowledge and skills component does not co-relate with it. This can create confusion for textbook writers and teachers in designing their literature. This unit doesn't reflect embedding of Human Geography Domain well.

*Unit 2, Water Supply, Class VII:* What's stated in <u>SLOs is not reflected in its Knowledge and Skills component</u>. For example, the SLO clearly mentions understanding of similarities and differences between select regions of the world to understand consumption and distribution patterns, but the corresponding knowledge and skills component does not infer any global citizenship values. Also, the knowledge and skills component directly talk about ways to convert sewage into bio-gas without first introducing the concept of recycling energy and resource conservation. This is an error of <u>logical sequencing of concepts</u>.

Unit 4, Agriculture, Class VII: The problem of disconnect between SLO and intended Knowledge and Skills is spotted again. The Knowledge and Skill component intends to impart knowledge on "How loans from International sources can benefit the primary sector of agriculture?" whereas, it is not stated in the learning objective of this unit. Although it would be more relevant in terms of finance and economy, however, the intersectionality of it with agriculture can be brought along with other social factors indicating economic disparity between landless farmers and landlords, politics on farming, gender parity, ethnic inclusivity, etc.

*Unit 5, Climate Change, class VII*: Climate change and its impacts on human settlements and changes in demography should also have been mentioned in the SLO's and the corresponding Knowledge and Skills component. The fact that South Asian region is among the most vulnerable regions that's stand to suffer the most from climate change: with Himalayan Glacier melting and the resulting floods.

Unit 6, Minerals and Power, Class VII: A stress has been laid on economic progress, revenue generation and resource consumption. These need to be mentioned in the scope of human geography, where population demographics can be discussed to show the link between human lifestyles, and commerce. In this regard, an SLO stating "Describe economic activities related to natural, capital and human resources" has no corresponding information on human demography indicating a diverse topic on human resources. Also, another SLO stating "Understand basic role of global economic system and interdependence with global economy" is not reflected in the knowledge and skills component of this unit.

#### c. Problems in Unit assigned for lass VIII

*Unit 1, Oceans and Seas, Class VIII:* The SLO mentions "Investigate geographical, climatic, political, cultural, and economic aspects of places using geographic representations and geospatial technologies.", whereas it is not corresponded in the knowledge and skills component. Moreover, no sequential knowledge has been provided on the cultural and political aspects of geography for the previous classes under this curriculum, which makes the inclusion of this SLO disjointed and irrelevant in terms of its logical placement. It was also important to introduce the concept of cultural and geo-political intersection in grade VI.

Unit 3, Environmental Pollution, class VIII: This unit does not indicate problems of pollution and health—an important concept that can be brought forward with more direct experiences of the learners. The causes of smog, water source and river pollution in Pakistan's context should be mentioned with more emphasis. Another intersection of politics and industrialization having longstanding impacts on human health is not considered. Again, the consequences human face needs to be discussed in light of local dynamics of the population.

*Unit 5, Transport and its Importance, class VIII:* The regional cooperation for trade and commerce is important to talk about both in terms of inferring global citizenship values and as well citizen responsibility in Pakistan's local context. The Knowledge and Skills component mentions CPEC and Silk Route, but it is not mentioned in the SLOs.

Unit 6, Social and Economic Development, class VIII: Wile this unit is heavily tilted with macro-economic terminologies, little has been mentioned of social development in light of human settlements and their demographics. Much is desired on depicting how people of the society and resources contribute towards social development and wellbeing. The inclusion of specialized economic development metrics (EDI and HDI) in the Knowledge and Skills component of this unit is irrelevant to intended learning objectives.

#### 1.4 Recommendations

- Include a concept on population studies and demographics and how they change as per location and geography. A lack of understanding on human demography is the reason why no cultural and religious diversity and local orientation to different lifestyles could be identified in this curriculum.
- Include a topic People and Society within Pakistan and across the globe. Society's behavior and its interplay with the environment in light of cultures is an important lesson. Although "Human Resource" has been mentioned many times in this curriculum, but it is left without an elaboration. Gender representation remains nil, although women as important contributors to economy and social development, is an important topic for human geography.
- There is very little discussion on human settlement, human migrations and adaptation to changing environments. This should be included as a concept under SLOs.
- There is no knowledge or civilizational overview provided on the seven continents of the world. A brief introduction to the land and places will open more avenues of global knowledge for children.

- The curriculum does not provide guidelines for textbook writers and the teachers on the ethnic and religious diversities existing within Pakistan. This subject is treated as merely a sub-topic, whereas it deserved mentioning of local geo-cultural dynamics that prevail across the many regions of Pakistan. A chapter or dedicated topic should have been included with more information on the indigenous cultural and ethnic as well as other religious groups of Pakistan including their lifestyles and associated commerce and trade.
- Diversity in Pakistan (cultural, ethnic and religious) must not be ignored. This knowledge is important to be imparted to our young learners so they are able to make sense of children coming from other ethnic or religious background. It will contribute positively towards inculcating vales for peace and empathy in our learning environments.
- The curriculum should provide clear guidelines for textbooks and the teachers. Very little instruction is provided on assessments, and a pedagogical framework to be adopted by teacher is almost non-existent.
- Domain of Human Geography should be integrated well in all units. It is more inclined towards economy and climate change, not people and places.
- SLOs must also be focused on neighboring countries, importance of regional cooperation for environment and development. Geo-politics is an important domain where learners should be able to understand the difference between border, line of control and geo-political significance of South Asian region.
- Geography lessons become dull and boring if interactive fun activities are not suggested. The style of writing geography textbooks also matters for the recipients of this important knowledge. For this, we suggest characterization and using storytelling based on different geographical features of human settlements. For example, a story of a woman's day routine in the mountains and the commerce that her hard work is associated with may bring a more humanistic understanding of lifestyles and geographical impacts on human settlements. Moreover, the suggested activities against SLOs should have been more open to discussions and debates with learners with a focus on their finding solutions to problems.
- The topic on Human Settlements must include information on types of populations, along with an introduction to the idea of nomadic or gypsy settlements that keep moving from one area to another for various reasons (for e.g. the Gujjer tribes move down from high pastures to lower plains during winters, and can mostly be seen in urban upper or central Punjab). This will bring addition to local knowledge on population dynamics along with the different types of settlements that emerge as a result of such mobility and migrations.

Lens	Concern	Recommendation
Civic and Peace	To promote values of global citizenship, there is	Include more chapters/topics or sub-themes that can
Education	inadequate information on human settlements that	exhibit variation in lifestyles and commerce from other
	could provide a civilizational overview of each	regions of the world. For example, lessons on lifestyles in
	continent.	African continent, or the challenges of living in polar
		region, or the hardships of rural mountain life need to be
		narrated to sensitize the learner of different global
		experiences.
	Social sensitization on the impact of natural calamities	Lessons from impacts on human life from Attabad Lake
	on human settlements should be talked about in	incident of 2010, the catastrophic floods of 2010 in
	Pakistan's lived-experiences. The melting of Himalayan	Khyber Pakhtunkhwa, South Punjab and Sindh and the
	Glaciers, the global warming, Attabad Lake formation	life-shattering earthquake of 2005, including other
	must be talked about in light of their consequence on	natural disasters as a result of global warming or
	human settlements. It is important to indicate towards	deforestation should be included, with a stress on human
	the reasons for internal human migrations and	coping mechanism during emergencies. This will make a
	displacement because of such events.	learner more socially aware to protect environment and
		to be able to reduce or prevent damages during
	No information is provided on lifestyles and commerce	emergencies.  Topics or themes need to be included on neighboring
	of Pakistan's immediate neighboring countries. An	countries, with an emphasis laid on the economic and
	important value of imparting regional-consciousness	environmental potential of cooperation among them.
about neighboring countries and identifying familiar		This should mention not just inclusion of Afghanistan,
	environmental concerns, such as smog, global	China, Iran and India, but also all SAARC countries in the
	warming, and internal human displacements, is missing	region. This will help the learner become more aware of
	from Human Geography section	the positive potential of regional cooperation.
	Suggested activities against SLOs need to be more	Guideline for teaching techniques and suggested
	participative and creative. Learners are subjected to	activities should allow for more conversation and group
	mere research with little opportunity of expressing	work followed by a lesson. The participation should focus
	opinions	on generating analytical approaches and improvising
		problem-solving strategies.
Diversity of	No information is provided on the <b>diversity of religions</b>	An overview of human geography in all continents should
Religion and	and cultures in global context. The brief mentioning of	be given, where sense of society in relation to geography
Cultures	this theme is made specific to three countries only.	can be developed. Religious and cultural diversity across

		the globe should be included as a separate theme or topic in this curriculum		
	More topics should be dedicated to Pakistan's region- wise religious and ethnic groups. This should also relate with the guidelines provided for teachers and textbook authors for ensuring the topic is relevant and rationally imparted.			
Gender	Women are not portrayed in any of the topics or sub-	Women as a population group, their ratio to men and also		
Representation	themes in the curriculum.	their role in economy, commerce and trade industry should be embedded in the curriculum.		
	Women and Transgender persons have no representation.	The concept of gender parity in different dynamics of population studies should be introduced to the learners. This will be important in inculcating values of appreciation for the presence of the marginalized gender as equal citizens of Pakistan should be ensured through curriculum.		

#### 1.5 Conclusion

The UNESCO's document Prototype National Curriculum Framework defines six competency areas which are technology, communication, analysis and synthesis, creative thinking, problem solving and working with others<sup>5</sup>. It is recommended that guidelines be provided to textbook writers and teachers on the competencies that are relatable to our exiting learning environments. From the perspective of creating a sense of diversity and inclusiveness, it's important to broaden the scope of understanding the people from around the world, instead of limiting this concept to specific countries. More examples need to be included on the commercial and economic potential which the diverse groups of people can bring to a country as it will help develop a sense of appreciation of cultural/ethnic and religious differences in our learners. A lot is desired from the suggested activities to be more communicative and thought-provoking so the students can develop an informed opinion before expressing them and devising problem-solving strategies as part of their social skill training.

<sup>&</sup>lt;sup>5</sup> Prototype of a National Curriculum Framework, 2017 by International Bureau of Education. <a href="https://unesdoc.unesco.org/ark:/48223/pf0000260045?20=null&queryId=7c39e708-428f-47eb-aba9-15008252d4e3">https://unesdoc.unesco.org/ark:/48223/pf0000260045?20=null&queryId=7c39e708-428f-47eb-aba9-15008252d4e3</a>

**Annexure 1: Learning Objectives reflecting Civic Education and Values** 

Civic Education Values	Total SLOs	Lifestyle and economic Diversity	Global Citizenship	Social Development	Social Responsibility	Total Values
Class VI	53	<ul> <li>Unit 2: Discover difference of lifestyles of two different settlements to appreciate and respect diversity. (living in mountains &amp; valleys)</li> <li>Unit 6: Inquire and describe the interaction between physical and human geography. (urbanisation, agriculture, deforestation</li> </ul>	<ul> <li>Unit 2 Differentiate similarities and differences between the geographical places of the world. (differences &amp; similarities between mountains &amp; valleys)</li> <li>Unit 3: Compare similarities and differences between patterns of distribution and consumption of resources of some selected geographical regions of the world.</li> <li>Unit 4: Explore ways forests of world and Pakistan contribute to the economy of the region they belong.</li> <li>Unit 4: Analyse the interdependence of resources within global economy. (benefits of forests)</li> <li>Unit 5: Find ways to improve the quality of their own and global environment.</li> </ul>		<ul> <li>Unit 4: Analyse the scarcity of resources compel people to wisely use resources. (deforestation)</li> <li>Unit 5: Identify how places are interdependent on each other and how human activity in one place affects other. (global warming and climate change)</li> <li>Unit 5: Inquire the impact of overusing natural and other resources on environment. (human activities contributing to natural disasters)</li> </ul>	13

			(reducing greenhouse gases & carbon footprint)		<ul> <li>Unit 5:         Understand and describe the effects of excess land use</li> <li>Unit 6: Inquire why landforms are changing due to human activity.         (desertification</li> <li>Unit 6:         Understand and describe the effects of excess land use.         (effects of population increase, excessive urbanisation and agriculture)</li> </ul>	
Class 7	46	<ul> <li>Unit 1: Compare settlements to understand adaptation according to human needs. (people living near rivers and on plains)</li> <li>Unit 1: Discover difference of lifestyles of two different settlements to appreciate and respect diversity. (people living near rivers and on plains)</li> </ul>	<ul> <li>Unit 2: Compare similarities and differences between patterns of distribution and consumption of resources of some selected geographical regions of the world</li> <li>Unit 3: Compare similarities and differences between</li> </ul>	Unit 6:     Understand that     high revenues     can be     generated by     exporting     finished goods as     per current     demand	Unit 2: Analyse     the scarcity of     resources     compel people     to wisely use     and modify     resources.     Suggest ways to     utilize resources     and to conserve     them	22 Values

•	Unit 3: Inquire and describe		patterns of	•	Unit 3:	
	the interaction between		distribution and		Understand and	
	physical and human		consumption of		describe the	
	geography. (types of		resources of some		effects of excess	
	settlements)		selected geographical		land use.	
•	Unit 3: Understand that the		regions of the world.		(effects of	
	economic progress of a		(feasibility of human		excessive	
	region relies upon the		settlement)		agriculture)	
	advancement in science and	•	Unit 4: Compare	•	Unit 4:	
	technology. (modern		similarities and		Understand and	
	infrastructure, transport etc.)		differences between		describe the	
•	Unit 4: Inquire and describe		patterns of		effects of excess	
	the interaction between		distribution and		land use.	
	physical and human		consumption of		(effects of	
	geography. (types of		resources of some		excessive	
	agriculture)		selected geographical		agriculture)	
•	Unit 4: Understand that high		regions of the	•	Unit 5: Inquire	
	revenues can be generated		world. (Pakistan as an		why landforms	
	by exporting finished goods		agricultural country)		are changing	
	as per current demand. (raw	•	Unit 4: Understand		due to human	
	materials from farming and		that the economic		activity	
	fishery to other countries)		progress of a region			
•	Unit 5: Construct arguments		relies upon the			
	with evidences to describe		advancement in			
	the interaction between		science and			
	physical and human		technology. (modern			
	geography		methods of farming			
•	Unit 6: Describe economic	•	Unit 4: Understand			
	activities related to natural,		basic role of global			
	capital and human resources		economic system and			
			interdependence			
			within global			
			economy. (raw			
			materials from			

				farming and fishery					
				to other countries)					
			•	Unit 5: Find ways to					
			•	improve the quality					
				of their own and					
				global environment					
				J					
			•	Unit 6: Compare similarities and					
				differences between					
				patterns of distribution and					
				consumption of					
				resources of some					
				selected geographical					
				regions of the world					
				Unit 6: Understand					
				basic role of global					
				economic system and					
				interdependence					
				within global					
				economy					
			•	Unit 6: Suggest ways					
				to utilize resources					
				and to conserve them					
Class 8	61	Unit 1: describe growing	•	Unit 1: Construct	•	Unit 4: Study a	•	Unit 1: Identify	40 values
		issues connected to physical,		arguments with		selected		how places are	
		human and environmental		evidences to describe		infrastructure to		interdependent	
		geography and economy		the interaction		understand		on each other	
		related to them		between physical and		adaptation		and how human	
		Unit 1: Investigate		human geography.		according to		activity in one	
		geographical, climatic,		(pollution in oceans		human needs.		place affects	
		political, cultural, and		& seas of the world)		(development in		other. (water	
		economic aspects of places	•	Unit 1: Find ways to		transport)		pollution in	
		using geographic		improve the quality				oceans)	

- representations and geospatial technologies.
- Unit 2: Discover difference of lifestyles of two different settlements to appreciate and respect diversity. (people living in any two different climatic zones
- Unit 2: Sophisticated use of vocabulary to describe growing issues connected to physical, human and environmental geography and economy related to them
- Unit 2: Investigate geographical, climatic, political, cultural, and economic aspects of places using geographic representations and geospatial technologies
- Unit 3: Construct arguments with evidences to describe the interaction between physical and human geography
- Unit 3: Investigate geographical, climatic, political, cultural, and economic aspects of places using geographic representations and geospatial technologies.

- of their own and global environment. (effects of rise in sea level
- Unit 2: Find ways to improve the quality of their own and global environment (global warming & climate Change)
- Unit 3: Find ways to improve the quality of their own and global environment. (reducing greenhouse gases & carbon footprint)
- Unit 4: Analyse and describe basics of global economic systems and interdependence of a selected region. (international trade)
- Unit 4: Describe basic role of global economic institutions and activities. (International Trade Organisations)
- Unit 6: Study a selected infrastructure to understand

- reasons of selecting a place to develop settlements. (transport in and around Pakistan, international routes of Pakistan)
- Unit 4: Analyse how the scarcity of resources compel people to use resources wisely.
- Unit 3: Identify how places are interdependent on each other and how human activity in one place affects other. (pollution & climate change)
- Unit 3: Inquire the impact of overusing natural and other resources on environment. (global warming and its effects
- Unit 3:
   Understand and describe the effects of excess land use. (global warming and its effects)
- Unit 3: Find ways to improve the quality of their own and global environment. (reducing greenhouse

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	• Unit 3: Sophisticated use of	adaptation according	gases & carbon	
	vocabulary to describe	to human needs.	footprint)	
	growing issues connected to	(comparison of		
	physical, human and	development of one	Unit 3: Find	
	environmental geography	developed country	ways to utilize	
	and economy related to them	and Pakistan	resources and	
	<ul> <li>Unit 4: Investigate economic</li> </ul>		to conserve	
	activities related to natural,		them. (reducing	
	capital and human resources.		greenhouse	
	(textile and cotton industry of		gases & carbon	
	Pakistan		footprint)	
	<ul><li>Unit 4: Identify how places</li></ul>		Unit 3: Analyse	
	are interdependent on each		how the scarcity	
	other and how human		of resources	
	activity in one place affects		compel people	
	other. (Industrialisation)		to use resources	
	<ul> <li>Unit 4: Sophisticated use of</li> </ul>		wisely. (reuse &	
	vocabulary to describe		recycle)	
	growing issues connected to		Unit 4: Study a	
	physical, human and		selected	
	environmental geography		infrastructure to	
	and economy related to them		understand	
	<ul> <li>Unit 5: Investigate economic</li> </ul>		adaptation	
	activities related to natural,		according to	
	capital and human resources.		human needs.	
	(transport in and around		(Industrialisatio	
	Pakistan, international routes		n)	
	of Pakistan)		• Unit 4: Analyse	
	<ul> <li>Unit 5: Describe that the</li> </ul>		that high	
	economic progress of a		revenues can be	
	region relies upon the			
	specialisation of resources		generated by	
	through education, scientific		exporting	
	research and technology.		finished goods	
	research and technology.		through	

(developments in transport	technological
and information technology)	advancements,
Unit 5: Investigate	marketing
geographical, climatic,	trends and
political, cultural, and	professional
economic aspects of places	ethics. (exports
using geographic	of Pakistan)
representations and	
geospatial technologies	Unit 5: Identify
Unit 6: Inquire and describe	how places are
some local, regional and	interdependent
global patterns of distribution	
and consumption of	and how human
resources. (measuring	activity in one
development	place affects
Unit 6: Investigate economic	other.
activities related to natural,	(development in
capital and human resources.	
(economic indicators)	benefits)
Unit 6: Sophisticated use of	Unit 6: Describe
vocabulary to describe	that the
growing issues connected to	economic
physical, human and	progress of a
environmental geography	region relies
and economy related to them	
Unit 6: Investigate	
geographical, climatic,	specialisation of
political, cultural, and	resources
economic aspects of places	through
1 ' ' '	education,
using geographic	scientific
representations and	research and
geospatial technologies	technology.
	(economic and
	human

Total	28	21	4	high revenues can be generated by exporting finished goods through technological advancements, marketing trends and professional ethics	75
				<ul><li>development)</li><li>Analyze that high revenues</li></ul>	
				indicators of	