A Qualitative Analysis of Development, Governance, and Stability in Balochistan Using China's Xinjiang Development-Governance Framework as a Lens

Abstract

Balochistan has considerable agricultural, mineral, coastal and strategic resources but their transformation into a broad-based development in the province is still far from even. This study will explore the selected development practices and their lessons learned in the Xinjiang region of China and analyze the application to Balochistan without seeking to replicate the institutes of Xinjiang, as this model merely offering practical lessons for Balochistan. The study focuses on qualitative design and a sample of 16 purposive stakeholders from the field of agriculture and rural development, targeted poverty alleviation, youth employment, skills and industrial development and local economic participation. The key factors identified in the thematic analysis were: Co-ordinated implementation, water efficient agricultural support, targeting of livelihoods, employer linked training, development of local suppliers and continuity of public services. They still believed in the transference of such practices however, only so far as it is made constitutional in Balochistan and is done in the context of its socio-economic and constitutional scenario. The vignettes show how these issues were linked to participants by development failure and to insecure mobility, discontinuous administration, poor market linkages, poorly targeted assistance, skills mismatch, and limited local capture of benefits from large projects. The results also show that insecurity increases the cost of projects, limits administrative presence and diminishes the confidence in the investments. It thus contends that the world needs an adequate secure operating environment for sustainable development and that development cannot be a substitute for lawful

security, legitimate governance or local participation; that is why Xinjiang's Development-Governance framework is ordained.

Keywords: Agriculture, rural development, poverty alleviation, youth skills, industrial development, security and stability.

1. Introduction

1.1. Background of the Study

The problem with development is not the lack of potentially productive sectors in Balochistan, it is the challenge of mobilizing the scattered resources and infrastructure to generate reliable household income, services and locally generated economic opportunity. Although agriculture is still significant for the rural livelihoods, groundwater stress and high pumping costs, poor storage and processing facilities, and unreliable market access diminish the income generated from agricultural production. Evidence from Quetta district makes this pressure clear: a farm study conducted in 2024 revealed that monthly farm net crop income was lower than the monthly income of the average household and that profitability of the farming operations is partly due to the intensive extraction of groundwater, which was deemed to be unsustainable by the study authors (Iqbal et al., 2024). Poverty is not just monetary, it is multidimensional. The results from the recent province-wise and rural level analyses conducted nationwide reveal that there are still deep education, health and living-standard gaps between provinces and even between rural and urban areas and that Balochistan is one of the areas with the most severe education, health and living-standard deprivation (Haq et al., 2024; Saddique et al., 2023). The difficulty of livelihood policy is greater than provision of isolated assets or one time infrastructure, because of these conditions.

The work side of the issue is just as applicable. Balochistan has some existing industrial activity and proposed industrial zones like Hub, Bostan and Gawadar, however, occupational

demand and requirement of industry do not always align with the TVET system in Balochistan. Through field visits, focus groups and over twenty key-informant interviews Ahmed and Shah (2022) identified some significant disconnects between the availability of TVET and the demand of selected industries in SEZs and EPEZs. Similarly, Ahmed et al. (2023) explain the structural dysfunctions in skills development that have a negative impact on the Labor market outcomes. Conversely, local-level research in Gawadar and the coastal region suggests that when local people see the infrastructure being constructed, they feel disheartened when it does not bring employment and/or consultation or livelihood benefits to them (Ali & Sanauddin, 2022; Shahrukh et al., 2020). The problem is not just one of increasing the number of projects but of linking projects to local workers, producers, firms and households.

Xinjiang's Development-Governance framework or China's approach since 2000 is part of Great Western Development Strategy (Xibu Da Kaifa). It is a state-led, infrastructure-centric model linking development with stability. Main aspects of this framework inclusive for the current research associated with Balochistan include; a) Infrastructure-Led Growth b) Pairing Assistance Program (Duikou Zhiyuan) - 19 eastern provinces support Xinjiang cities c) Industrialization for Employment - SEZs in Kashgar and Urumqi d) Targeted Poverty Alleviation and e) Human Capital Development. Xinjiang's Development-Governance framework is employed as a comparative lens on development-governance in this study due to its convergence of several problems of relevance analytically to Balochistan: Arid and semi-arid agriculture, large internal distances, uneven regional development, anti-poverty intervention targeting specific areas, vocational training, rural digitalization, and state efforts to link peripheries to markets are some of the focused Xining areas for this research study. There are empirically quantifiable examples recent studies have provided. An increase in the adoption of government promoted mulched drip

irrigation was seen in 739 households and 1763 plots in Awati County with participatory irrigation management (PIM) (Rao et al., 2021). Comparisons between collective drip and individual drip systems were found to result in lower intensity of fertilizer use and higher land productivity in collective drip systems (Guan et al., 2022). The evaluation of targeted poverty policies at the county level showed positive economic impacts, especially in the fields of industry and education (Huang et al., 2023); and a study of 1,385 families in southern Xinjiang revealed vocational training might help to prevent the risk of re-entering poverty, but effects were mixed and diminishing at the extremes (Chen, 2025).

There is very clear limits to the comparison between Balochistan and Xinjing as the political systems, inter-regional relations and security mechanisms in China are quite distinct from those in Pakistan and as well the federal and provincial levels relationships also. Studies on policy transfer suggest that the outcomes of policy transfer often change through the process of molding the policy into the local context, as a result of institutional context, coalitions of actors, and administrative capacity and local legitimacy (Legrand & Stone, 2021; Minkman et al., 2019). This research study focuses over the facts that are concern with peaceful development applied in Xining region of China applicable for the Balochistan a province of Pakistan. Thus this study positions queries regarding the practical development functions that is useful if restyled in local context of Balochistan.

1.2. Statement of the Problem

The research problem is the lack of one core and stakeholders driven description of how some of the Xinjiang's Development-Governance framework are adapted to the real world constraints to Balochistan livelihoods. Much of the past research regards poverty, insecurity, skills gap, resource development and concerns of local communities in Balochistan as separate issues

and the studies regarding the development of agriculture in Xinjiang or its regional governance in China's institutional framework. This creates a policy design to interest comparison gap, in other words. This gap is particularly significant as it is not only the size of infrastructure that determines its inclusion at the local level, but also insecurity mean that even well-designed projects fail to operate continuously (Ali & Sanauddin, 2022; Das et al., 2020; Madni & Farid, 2025). The study is thus interested in the conditions in which particular livelihood practices might be applicable, the adaptations that they need and the moments when transfer is not appropriate.

1.3. Objectives of the Study

1. To study practices of water saving farming, support for livelihoods, skills training and local industry participation in Xinjiang.
2. To highlight stakeholders' perception about the relevance and applicability of these practices in Balochistan.
3. To find the institutional, market, social and geographic changes required for the implementation in Balochistan practically.
4. To assess the impact of insecurity on the movement, investment, service delivery and implementing capacity.
5. To identify practices appropriate for adaptation by the pilot and practices that need to be protected or eliminated.

1.4. Research Questions

1. To what extent do stakeholders think there are livelihood and development practices in Xinjiang that could be relevant to Balochistan?
2. What changes need to be made in institutions, society, economy and geography so that these can be adopted in Balochistan?

3. What are the impacts of insecurity on the continuity, reach, and investment environment and capacity for implementing local development interventions?
4. What practices should be prioritized, carefully piloted or rejected on their appropriateness in Balochistan's governance, rights, and livelihood and participation context?

1.5. Significance of the Study

This study serves as a practical reference that actors have to consider in determining what are implemented practically in Balochistan. The analysis reveals the locations where efficient irrigation needs collective management and maintenance, in lieu of equipment distribution, for agriculture departments and local governments. It makes it clear for poverty programs why support to the household must relate to viable livelihoods/markets. It creates a demand-led strategy for technical education providers and employers that is based on occupations, training and placement in apprenticeships. It highlights the concepts of local procurement, supplier development and measurable local hiring for planners of industrial zones, mining and fisheries and agro-processing. It also provides a set of concrete questions to ask when considering whether an intervention is ready to be piloted: a safe operating environment, a clear livelihood constraint, an implementing institution that is accountable, a reliable connection to an employer/market, and measurable impacts that is tracked after delivery at a local level for provincial policymakers and development stakeholders. The study is also relevant to security development policy, as evidenced from Pakistan and other conflict affected contexts, violence inhibit investment, affect access to services and diminish program reach, while security and development go hand-in-hand that is, complement one another where neither is a substitute for governance.

2. Literature Review

2.1. Comparative Policy Learning and Barriers to Transfer

Comparative development learning is best effective if the policy is broken down into its functions, implementation mechanisms and enabling conditions instead of being delivered as a whole institutional package. Current policy-transfer literature emphasizes the role of domestic actors, institutional capabilities, political legitimacy, and the nature of the process of 'localizing' an imported idea in the creation of local rules (Legrand & Stone, 2021). Transferring the Dutch approaches to delta planning to the city of Jakarta was another instance where the received policy became stuck when the transfer process and fit of policy into the receiving context were insufficiently considered (Minkman et al., 2019). When it comes to a comparison between Xinjiang region of China and Pakistan's province of Balochistan, this is an important point of view to consider. The issue is not whether the two areas are comparable, it is whether a particular function, like the establishment of irrigation user associations, targeting livelihood support, or the linkage of training to employers, is able to solve a similar problem in the province and is done under Balochistan's existing provincial and local and constitutional structures.

2.2. The Production and Management of Agriculture, Water and Rural Value Chains

Xinjiang's Development-Governance framework has one of the most empirical foundations in agriculture. Since both Xinjing and Balochistan have limited water supplies and remote rural populations that must figure out how to maximize value from these limited resources. The authors of Rao et al. (2021) analyzed participatory irrigation management and mulched drip irrigation in rural areas of the Xinjiang region based on 739 households and 1,763 plots. They discovered that participatory irrigation management did not automatically lead to the improvement of irrigation management at the local level, but it did stimulate the farmers to adopt government

sponsored, mulched drip systems from traditional, flood systems. The discovery is significant as it is the first to distinguish between irrigation equipment and the institutions that support it. Guan et al. (2022) arrived at a similar finding for collective and individual drip irrigation: They found that the fertilizer-use intensity with collective drip system was lowered by 10.31% while individual drip system was raised by 5.57%, and the advantages of the collective drip system were the land productivity was increased more than 13.65% compared with the individual drip system. The mechanism found in the study included coordination of fertigation decisions, which means that what is as important as the technology is how it is coordinated.

The evidence needs to be understood in the context of the groundwater economy of Balochistan. To investigate the problem of the scarcity of water for irrigation, Iqbal et al. (2024) conducted a study on 100 farmers in five villages of Quetta district where the entire irrigation requirement was met by groundwater. The average net crop revenue of them was Rs. This accounted for 32168 per month compared to the average expenditure of a household of Rs. Cropping alone was not enough to sustain household expenditure and livestock and non-farm income were important as shown by 33,960. They also discovered that crops were making a profit at the expense of over-appropriation of scarce groundwater resources and that continued groundwater depletion would negatively impact productivity even more. This evidence renders it insufficient to rely on a simple subsidy to drip equipment as a policy response to this. What is important in Xinjiang is the experience of using irrigation technology in combination with collective rules, technical support and coordinated management. Those mechanisms would have to be coordinated with the regulation of groundwater in Balochistan, farmer water user groups, financing for maintenance and crop water-use to produce more value per unit of water rather than more water intensive production model.

2.3. Focused Poverty Eradication and Livelihood Improvement

The literature on targeted poverty interventions for Xinjiang shows that targeted poverty policy has been shown to be more than just payment transfers. Huang et al. (2023) utilized panel data for 32 national key counties for poverty alleviation in Xinjiang and 48 other counties to apply the difference-in-differences technique and remove endogeneity of economic activity by using night light data. The study reveals that the targeted poverty policies had a significant positive impact on the economic development of counties, with enhanced impacts in minority counties, and in southern Xinjiang. It revealed that intervention in the field of industrial poverty alleviation and education-related intervention are important channels, of which the former channel is stronger based on its mechanism analysis. This outcome is important for Balochistan because it has been able to integrate anti-poverty support to productive sectors, capabilities and local market demand as a livelihood approach. Meanwhile, it does not provide any proof that targeting is replicated on an administrative level; the key principle that can be transferred is to pinpoint the constraint of a poor household or locality, and provide them with support along with a viable income pathway (Huang et al., 2023).

There is a case for differentiated intervention because Balochistan's poverty profile. Using data from the Household Integrated Economic Survey (HIES) conducted in 2018–19 in Pakistan, Saddique et al. (2023) revealed that multidimensional poverty was higher in rural areas and the province of Balochistan and that the poverty risk was strongly correlated with the employment structure of the household. The provincial disparities of multidimensional deprivation were also found to be significant, as did Haq et al. (2024) who reported that education is the largest deprivation dimension in their national MPI computation. These studies suggest that a combination of interlinked interventions – income generation, education, productive assets, connectivity or

services – may be necessary in a household. In other words, a practical adaptation of the concept of "targeted poverty alleviation" in Balochistan would necessitate clear profiling of the households and localities, developing a livelihood plan appropriate to the district economy, subsequent monitoring following asset/skills training and measures of sustainable income generation and not just the number of households "served". This is more in line with evidence of multidimensional deprivation compared to a one-size-fits-all package provided to very different districts (Haq et al., 2024; Saddique et al., 2023).

2.4. Youth Employment, Vocational Skills and the Alignment with the Labor Market

Another area of interest from Xinjiang's Development-Governance framework is of service but also with some limitations. Based on a survey of 1,385 households in contiguous regions, deeply impoverished in southern Xinjiang, Chen (2025) examined the data using the propensity score matching technique. This study analyzed that the vocational tannings were perceived by local as ineffective. The policy message was not that more training is needed in general; it was more focused and specific training, in terms of the technical requirements of viable rural and non-farm activities. The research elaborated that it was local perception that vocational trainings are not fruitful but in general these training provided skill for poverty elevation. It's this differentiation that lies at the heart of Balochistan. The provincial TVET system is underdeveloped compared to the current and expected demands of occupations in selected SEZs and EPZs (Ahmed and Shah 2022), and institutional weaknesses are weak linkages between training and the Labor market (Ahmed et al. 2023). The studies converge on an employer-driven approach, involving linking jobs to courses prior to funding of the courses, employer involvement in the design of the courses, and tracking of placement and work experience outcomes following the completion of the apprenticeship.

2.5. Industrial development, local participation and market connectivity

Industrial development create employment and opportunities for the local people to do business, but the literature of Balochistan reveals that investment in industry does not equal economic inclusion of the local people. Ali and Sanauddin (2022) found, through qualitative fieldwork in Gawadar that the local respondents were generally positive about the infrastructure development while at the same time they experienced a sense of lack of employment, decision making and benefits for livelihood. Shahrukh et al. (2020) also noted the aspirations and socio-economic issues of the coastal communities, and recommended that they be included in the development activities of CPEC. The results are directly applicable to any endeavor to learn from the industrial development in Xinjiang. The number of industrial areas and industrial projects in Balochistan should be measured not only based on their investment capacity or completion, but also based on local procurement, number of apprentices, number of suppliers entering the industrial area, household income and the protection of existing livelihoods. The main lesson to draw from the practical is that big projects cannot be run as secure enclaves with limited local multipliers, but must form an economic ecosystem with strong local multiplier (Ali & Sanauddin, 2022; Shahrukh et al., 2020).

Connectivity to other markets, both digital and physical, also impacts the ability of remote producers to access markets. Zhu et al. (2023) compared 14 prefectures or cities in Xinjiang over the period 2013-2019, and showed that both the digital-economy indicators and the rural revitalization indicators improved over the years, but with significant spatial disparities, with generally better performance in northern Xinjiang. A key challenge to better integration of the two systems was seen as digital infrastructure. The study is applicable to Balochistan as it demonstrates that digitalization is not a standalone solution for the roads, logistics or institutional capacity. A

farmer or a small business is informed of or access to Internet buyers, but trade still needs to be aggregated, graded, paid, and transported, while maintaining reliable communications. Access to digital markets therefore, is most realistic in the context of commodity-specific digital market access with provision of physical collection points, logistics contracts and facilitation in local languages for remote districts of Balochistan rather than a generic digital platform that is disconnected from supply chain realities (Zhu et al., 2023).

2.6. Insecurity, Governance and Development Continuity

The security development literature is very supportive of the notion of security as an enabling condition rather than simply a causal one that spending on development leads to peace. The wider empirical evidence suggests that the terrorist attacks have a negative impact on capital flows by influencing the economic behavior of capital and influencing perceived risk (Charfeddine & Shahzad, 2021). Insecurity affected access to health services in the conflict-affected areas of Balochistan and the former FATA, which included staff shortages, weak supervision, nonfunctional facilities, coordination issues and less investment in the health service (Das et al., 2020). Conflict, too, was found to hinder access to development, as Ghorpade (2020) found that exposure to conflict led to a decrease in the access of households to main developmental cash-transfer programmes following the floods in Pakistan in 2010. These results are very similar to the mechanism studied in this current research: the conditions of implementation change due to violence before any long-term effect of development takes place.

There is also comparative evidence indicating complementarity, and not a trade-off, between security and development. Similarly, in their paper on falling violence in Jammu and Kashmir, Kaila et al. (2020) highlight the need for complementary roles, given that they established that structural breaks in violence are related to the deployment of security measures

and the implementation of large development programmes. But there is evidence pertaining to Balochistan that cautions against the design of development. However, Madni and Farid (2025) suggest that the tensions is aggravated in a region where both local agency and benefit-sharing are low in the presence of entrenched ethno-national grievances when development is centered and infrastructure-based. This phenomenon was witnessed in Xinjiang in earlier stage of the development, as some poverty-related training and coordination mechanisms have quantifiable development impacts, and labor transfer as well as centralized social management are brought to the fore by scholarship. The literature confirms thus the argument of the paper that a secure operating space is essential to effective programme delivery, but that a stable programme is also only sustainable if lawful institutions are in place, local participation and development gains are real, and are credibly available to the community. This can also be seen in Xinjiang as with the passage of time the locals enjoyed the benefits of development and they participated in the model happily.

3. Research Methodology

In the present study qualitative research design was adopted which was used to explore stakeholders' awareness level on the concept of terrorism, security, stability, governance and local development in Balochistan. It was a purposeful, limited snowball sampling which led to a total of 16. The sample comprised people who had experience in academia, public administration, development practice, politics and local governance, community engagement and security or policy analysis. Semi-structured interviews facilitated the participants to describe in their own words the processes of causality, implementation limitations and context-specific judgments. Five questions were discussed in the interviews: development impact of terror, conditions for stability, governance and continuity of services, adaptable components of the Xinjiang system, non-

adaptable as well as conditional ones. Thematic analysis was conducted using reflexive thematic analysis (Braun & Clarke, 2021; Byrne, 2022) which involved the repeated process of familiarization, coding, development, review, definition and synthesis of themes. The framework of security development was applied in the initial coding and the framework of unanticipated patterns was used with the security development framework, which was a combination of deductive inductive approach. The number of participants was determined based on the information power (Malterud et al., 2016), also given the focused research question, and sample size was determined as sample adequacy. Auditing, coding multiple times, consideration of differences in perspectives and triangulation with policy documents, development reports and current security literature (Nowell et al., 2017) strengthened the trustworthiness of the findings. The purpose of the study, the voluntary nature of participation, and the issues of confidentiality and sensitivity in discussing security related issues were explained to the participants. Avoiding omissions of information about identity and identifiable institutional information. Analysis is given in the form of thematic interpretation of perceptions, instead of in quotation or generalization of numbers without supporting evidence. This has also allowed for a continuation of depth and consistency in analyses in different professional accounts.

4. Data Analysis

4.1. Security as a Precondition for Continuity of Development

The most consistent observation was that participants did not actually consider insecurity to be a policy area to discuss following development planning. They said it is something that alters the viability, cost and impact of development activity prior to implementation. Insecurity affects whether technical staff will go to district, whether contractor will bid for job, monitoring visits, use of roads, and whether families/firms think an announced intervention will last long enough to

make them change their behavior. Participants kept on emphasizing the difference between the building of asset and its use. A road, market facility, clinic, training centre or irrigation scheme could be in existence but its development value would be diminished if access to it is sometimes blocked, is poorly staffed or if users are deterred from using the road because the risk is uncertain. This view was shared by all professions, and it was believed that a measure of security should be based on the extent to which normal economic and administrative functions are performed.

One participant who had experience with security and policy issues said that disruption of the project was a chain of events. As threats increase, movement in the field is further limited, frequency of supervision is reduced and contractors add more time and security expenses. The short-lived effect can be temporary, but the repeated effect has an impact on larger decision making: business delay investment, experienced workers opt for other assignments, local traders bring down their stocks, families are apprehensive about travel, and educational spending. The main argument of the participant was that the damage to buildings or equipment is not sufficient to assess development. The more significant losses are the disruption of routines which provide an economy and administration predictability. This participant thus advocated a security first operation in the acute risk zones, but noted that the idea of security was to make the movement, services and legal economic activity normal, and not security itself (vignette 1 SEC).

4.2. Local Participation, Institutional Continuity, and Governance

This theme was on how the improved security is translated into continuity of development through governance mechanisms. Governance was not primarily discussed in terms of the formal design of institutions. They explored: Do departments exist, are responsibilities clear, are there a maintenance budget, does there exist any participation of agencies and, when implementation fails, is there someone that is known? Several participants compared the kind of presence of the state

that is visible to the kind of presence that is effective. A security checkpoint does not replace a working staffed school, a working basic health unit, an extension officer, a district engineer, a working local government office, nor a predictable grievance mechanism, in their opinion, in high-risk situations. They also voiced concerns about the loss of momentum of projects if the administrative leadership changes or responsibility is shared among agencies but there is no effective coordination process in place.

The public administration and local-governance officer explained an inter-dependent pattern of project approval, intense political attention when launched and subsequent diminution by transfer, delay in release, change in priority or inadequate interdepartmental follow-through. For local communities, in this account, development is frequently a series of announcements that are not necessarily a reliable service. The participant found the focus of Xinjiang development model on administrative follow-up to be analytically useful and found the concept of clear targets, milestones and monitoring, useful but found highly centralized decision making was not suitable for Balochistan. It was preferred that it would be implemented through a district level implementation compact, signed between the departments, the local government and communities as well as the relevant security actors, so that responsibility, access, maintenance, complaint handling and reporting responsibilities would be agreed upon. The participant's perception was that continuity generates credibility: if people sense that services are still available, and commitments still stand even if people change jobs, they are ready to cooperate with institutions, and they are willing to put their money where their mouth is and invest in the local opportunities (Vignette 2 PAO).

4.3. Agriculture, Irrigation, and Rural Livelihoods

Participants in Agriculture were always guided in the process to go beyond yield and into the entire chain of livelihood. Although they believed technology was important and that technology would help them irrigate more efficiently, they were worried that technology would not resolve the income issue if their bargaining power, transport, and processing power were weak, and they had no storage. The pressure of groundwater was also assumed to be a constraint. Policies that lower the private cost of pumping but don't regulate pumping were seen as potentially having a trade-off that could lead to increased short-term pumping, but ultimately to greater long-term depletion of the resource. The Xinjiang experience of irrigation, therefore, was not viewed as a package of crops or technologies that is reproduced, but as a model of co-ordination. Participants revealed that shared system have potential for farmer to have scheduled water distribution, maintenance contribution and technical rules. It again depends on the size of the farming in the districts crop pattern, and local trust.

Agricultural development officer has described how farmers could have been able to cultivate the fruit or other crops successfully, but have been able to negotiate few points with the traders because of lack of cold storage, processing, and selling the crop in a hurry. For this participant, the salient lesson to learn from Xinjiang development model was the effort to link agriculture production to processing companies and structured markets. But the participant was not keen on a centrally managed organization. The recommended Balochistan variant consisted of the formation of local producer groups, technical assistance to those producers, clear deals with traders and farmers investment in storage/grading, if possible, only if a market was identified. The participant suggested that collective organization would be an actual solution to enhancing bargaining and sharing the cost of facilities; however, that they should not be established just to

meet project specifications and should have credible rules for collective management (Vignette 3, ADO1).

Another participant stated that the isolated inputs may have short-term effects. The increases in output that is achieved through seed distribution or by using machinery or irrigation equipment are highly dependent on the other inputs to the production process, such as extension advice, water management, maintenance, and market access. The function was one of the useful functions that the participant thought was seen in the Xinjiang experience, i.e. coordination between production and economic planning. But in Balochistan, the implementation would have to be flexible enough to cater for the district differences, for example, a horticultural district with a groundwater crisis would need a different package as compared to a livestock dominated or rain-fed district. The participant preferred therefore to pilot projects with the combination of water efficient irrigation to crop-specific extension, maintenance arrangements, monitoring of groundwater levels and a pathway to a buyer or a water processing plant, rather than as a standalone subsidy (Vignette 4, ADO2).

The participant from local government spoke of interdependence between the roads and the other factors, such as water management, agricultural support and market facilities. For the participant, a lot of projects do not meet the desired standards because one part is finished but the rest of the economic system is not. The road could reduce physical distance, but have little livelihood impact if farmers are unable to group the output together, if there is little transport service, or if the market simply is not ready for the output. Likewise, a water intervention can be unsuccessful if farmers have no technical assistance to help them or if an increase in production only reduces farm-gate prices. This participant welcomed integrated rural development packages but advocated for the development of these packages at a geographically manageable scale, so that

the combination of constraints of access, water, production and markets is really binding is chosen by consulting with the local community (Vignette 5, LGO).

4.4. Household Livelihood Pathways and Targeted Poverty Alleviation

The participants were generally opposed to a uniform approach to the delivery of the poverty programmes for all the poor households. They referred to geographical and occupational diversities in the state of Balochistan and termed its problems as deprivation. A livestock household in a drought, a land poor household in the vicinity of a town, a household by the coast engaged in fishing and a young graduate who has not found a job may have all taken up a poverty criterion, but they will all need completely different supports. The participants thus viewed targeted poverty alleviation as a diagnostic process, which was then followed by an action pathway in relation to livelihoods. The constraint that is preventing a household from achieving a sustainable income should be identified as a part of the targeting process and the intervention should involve the "minimal set of inputs needed to address" that constraint. They also made a point of follow up. If the asset is sold or not used, or if it doesn't reach a market, the asset distribution is not a successful livelihood intervention.

One of the participant's community development officer was in favor of targeting based on space and households. The participant pointed out that it will be difficult to allocate resources in a few places and show wide area coverage. The combination of insufficient access to services and the lack of security in a district leads to a multitude of small activities, with little overall impact. The participant most liked the concept of focused packages in specific areas where security and administration are present to enable follow up. They would begin with a basic livelihood profile of what skills already exist, what productive assets, the distance to the market, the Labor in a household, and realistic income options, in the context of household support. Support may then consist of a productive asset, skills, producer organization and market linkage. The participant felt this was

more applicable than a standard cash or equipment award since it provides a foundation for assessing the outcomes of the intervention on household income and resilience (Vignette 6, CDO).

4.5. Digital Technologies, Market Opportunity, Connectivity, and Rural Digitalization

Connectivity became a feasible link between agriculture and poverty alleviation and local enterprise. The participants emphasized that mobility is a crucial factor in Balochistan, due to its size. Insecure roads have more than just a negative impact on travel time; they impact delivery schedules, inventory decisions, staff availability, access to schools, health facilities and government offices, etc. The participants also made a distinction between strategic infrastructure and the feeder systems through which the people in the community access the strategic infrastructure. Where streets between villages are not good, transport is poor, internet connectivity is limited, and collection points or small business logistics is limited, the economic value of the large corridor is limited. Digital projects which do not address physical issues were not seen as useful by participants, whereas digital tools for price information, payments and buyer contact had a positive view.

A business market policy analyst mentioned a producer far away who knows that there is better price in Quetta, Karachi or any other market, but he/she could not get it because of not having large volumes of produce, irregular transport and not standardizing its quality. Only once these constraints are organized, the participant noted that digital market information was helpful. In this perspective, a realistic pilot would be setting up a physical aggregation point, grading and packaging rules as well as an agreement for transporting the product and an identity of a group of buyers, and then communicate the prices, orders and payments through digital tools. The participant also related market access with security, to ensure the routes are predictable enough to allow transporters to do their work without having to add on informal risk premiums or delays.

This perspective made the ‘connectivity' mantra become a question of how many times a producer can be able to get to a buyer at an affordable price (Vignette 7, MPA).

4.6. Youth Employment, Workforce and Skill Development, and Their Links to Employers

A group of young people saw youth employment as an employment goal and a source of confidence in their development. They did not say that joblessness equals terrorism. They instead believed that a visible path from schooling or skill acquisition to good (or legal) livelihood is what makes development at the household level meaningful and makes bad (or illegal) livelihoods less appealing. Strong criticism of certificate oriented training that is planned in absence of up-to-date information on employers' needs. Occupational mapping, short cycle technical courses, apprenticeships, career guidance and placement monitoring were supported by participants. They also preferred to focus on sectors. Several sectors, such as mining services, logistics, construction, fisheries, agriculture, renewable energy, information technology, health and education were mentioned several times as sectors where training could be related to known needs instead of course lists.

An academician said that the mismatch between the supply of training and the demand from the employers was a governance issue, rather than a curriculum issue. Rewards are frequently offered to training institutions for enrollment and training completion and employers determine the ability of a worker to carry out a task. The participant suggested that the participant would like to see new courses starting with employer interviews and occupational standards followed by an agreement for work placements and/or apprenticeships. The outcome of programmes would not be the only measure of completion – placement, job retention and earnings after training would be measured. The participant considered vocational training as an instrument that would only be useful at this operational level, and rejected forced or politically motivated Labor placement,

explicitly. The participation of Balochistan should be optional, certified, and linked to the needs of the local Labor market, with provisions made to cover expenses for moving into and out of the district for those who are required to travel to the location of the job (Vignette 8, ACD).

4.7. Industrial Development and the Link between Local Market Participation

There was a significant interest in the mining sector, ports, transport, energy, fisheries and processing industries, as well as the danger of enclave development, were observed. The skilled Labor, suppliers, services and procurement for large projects may be mostly outside Balochistan and it may be physically located in Balochistan. This sense of in-security exacerbate this division as businesses facing threats are more likely to centralize operations, limit access and use trusted external partners. The participants therefore called for re-engaging local economy, and for it to be designed rather than assumed. They advocated for local supplier registers, pre-qualification, guidance, quality certification, apprenticeship quotas, and small business services and user friendly job information to assist Balochistan businesses to comply with procurement requirements. They also pointed out that the participation targets set for the area should be realistic and should be related to skill development and not symbolic pledges that a firm cannot honor.

The participant described a project where security and operational needs are addressed within the project and there is only a small multiplier impact outside the project. They could continue to be excluded from the programme if they do not have certification, finance, information and safe access – as might be the case with local transporters, workshops, food suppliers, maintenance firms and technical workers. The participant whose lesson on coordinated development in Xinjiang was the most useful believed that the deliberate linkage of infrastructure and training and enterprise development was the most useful. Proposed supplier development window for Balochistan – Identification of commodities and services for which suppliers are

developed in Balochistan, Training the suppliers to standardize them, Advertising procurement opportunities and tracking of value of the contracts won by the local suppliers. The participant deemed it more relevant to the level of local development than investment value (Vignette 9, Eco).

4.8. The Transferability Restrictions, Trust and Inapplicability of Practices

This theme was that of the distinction between selective learning and inappropriateness in the transplantation. The opinions on functions like long term planning, delivery coordinated, vocational skills, specific provision, protection of critical infrastructure and the monitoring of the implementation were in general positive. They were much more skeptical of tools that were more associated with highly centralized social control in Pakistan, strong safeguards against intrusive surveillance without strong safeguards, political non-participation, placement of Labor from other parts of Pakistan, and making access to ordinary services dependent on political conformity. Participants voiced concern over this kind of activities which could affect the confidence needed for good governance and security in Pakistan. They wanted a security action that is focused and lawful, legal powers, a legal process, community liaison and grievances. Public communication was also seen as part of stability where security incidents, for example, there should be accurate information provided on routes, services and recovery and not what public expectations are shaped by uncertainty and rumour.

The development expert noted that integrated planning and disciplined implementation were valuable lessons to be drawn from the analytical exercise and that effectiveness from Xinjiang development model and it was the only reason to be interested in an institutional instrument. From this perspective, an adaptation has to meet legal requirements, it needs to be proportional, it needs to be compatible at a provincial level, local participation needs to be encouraged, and administrative feasibility and likely impacts on public trust must be considered. The participant

was especially concerned that widespread social-control measures might lead to a perception of peaceful civic or political activity as being a threat to security, thus diminishing cooperation. Selective and constitutional – protect strategic routes and facilities, enhance intelligence gathering and professional policing, ensure normal services, and establish ways for communities to pass information on security and implementation issues. The participant's conclusion was that the Xinjiang lens is useful in finding out Balochistan's need for a function but not when it serves as a justification for replication of political instruments (Vignette 10, DE).

5. Discussion

The agricultural results indicate the possibility of selective transfer of water-management practices from Xinjiang Development model but also illustrate the need to not imitate a technology without its management system. The participants discussed the links between irrigation technology, extension, maintenance, producer organization and storage and markets many times. This interpretation aligns with the results of Rao et al. (2021), who surveyed 739 households and 1,763 plots in Awati County and found that participatory irrigation management facilitated uptake of mulched drip irrigation promoted by the government but there was no direct linkage between participatory irrigation management and the uptake of irrigation management systems that were locally self-governed. The outcome is relevant to Balochistan as it indicates that the challenge of efficient irrigation is a part of institutional coordination. Collective drip irrigation also decreased the fertilizer-use intensity by 10.31% and increased land productivity by over 13.65%, compared to individual drip irrigation, as reported by Guan et al. (2022). The present results thus corroborate the small collective and/or jointly managed irrigation pilots in which the irrigation users agree allocation, maintenance and fertigation rules. Concurrently, there is need to enhance the protection of groundwater in Balochistan. Even as groundwater pumping persists, groundwater-based

farming remain financially vulnerable, as Iqbal et al. (2024) demonstrate. The transferable practice, then, is not just 'drip irrigation', but well-coordinated groundwater-sensing, water-smart production combined with maintenance financing and a market for the crop.

The results show that participants were more likely to choose targeted livelihood packages than consistent poverty schemes, a finding that aligns broadly with the results of our study in Xinjiang Development-Governance, but it also makes an important point regarding the need for adaptations. On the economic aspect, Huang et al. (2023) proved that the targeted poverty alleviation policies had positive economic impact in Xinjiang regions and identified industrial and educational channels as important channels. This reinforces the participants' perspective on poverty reduction to link households to productive activities and not stop at transferring or distributing assets. However, there is multidimensional deprivation in Balochistan which is unevenly distributed by rural/urban and district characteristics, as well as household characteristics (Haq et al., 2024; Saddique et al., 2023). Therefore, a provincial programme based on a single standard will not be well aligned to the evidence. The real-world application is to start with a livelihood diagnostics exercise in the household and carry out a district opportunity mapping exercise and only add in the components that are necessary: livestock services, water efficient agriculture, enterprise tools, certified skills, market aggregation, or temporary income support. Overall, the vignettes in the study suggest evaluation should follow delivery, and specifically, a sustained income and survival of assets and market participation. This is more complex to implement than blanket distribution, but responses from participants highlighted that a key gap is the need to report outputs but not have evidence of whether or not a poor household has a durable income pathway.

The results of the youth-employment showed clearly the need for demand-driven TVET. Based on 1,385 rural households in southern Xinjiang, Chen (2025) showed that vocational training increased the likelihood of escaping poverty, but did not have a uniform impact on all households and actually led to diminishing returns. In Balochistan, Ahmed and Shah (2022) reported that the provincial TVET system was not developed as compared to the existing and future industrial demand and Ahmed et al. (2023) showed the overall inefficiencies in skills development. The present participants agreed on an implementation level – a training course is only of use if there is a believable employment or business route that is linked to it. Employer demand checks prior to funding of courses, company participation in course curricula, and incorporation of supervised work experience and placement and retention monitoring instead of enrolment monitoring are important considerations for Balochistan. Insects could feed humans as well and this is already proven in their application for animal feed. The key entry points identified within the local market are related to the sectors of mining, logistics, construction, fisheries, agriculture, renewable energy and certain digital services. It is also important to note that this is in contrast to Labor transfer in Xinjiang documented in scholarship. In that context, Zenz (2023) provides a compelling reason why employment policy should not be uncoupled with the concepts of voluntariness and rights protection. So, the transferable aspect is the structuring of the skills to the work coordination, but the aspect of coercive placement or political conditions and restrictions on choice of occupation are not transferable.

The findings from industry reveal that rather than the question of investment coming into Balochistan, the key one is how much economic activity does the investment create around it. Participants spoke of the threat posed by the possibility of ports, mines, energy projects or industrial zones as for them in the absence of human development these initiatives can transform Balochistan being enclaves with external Labor, suppliers and services. This is corroborated by

the existing qualitative research on Gawadar. Ali and Sanauddin (2022) pointed out that the presence of tangible infrastructure could be appreciated but at the same time the people of the area feel disenfranchised from employment, benefits and decision-making, and Shahrukh et al. (2020) highlighted the socioeconomic issues of coastal communities. Jafar (2025) offered an alternate perspective to that of Madni and Farid (2025) by saying that localized agency and ethnonational grievances may worsen the conflict unless it is handled through centralized agency-driven development in an infrastructure. The following studies back the participant recommendation to have local economic-linkage mechanisms, explicitly, in industrial policy. Examples of appropriate measures are such as pre-project skills mapping, apprenticeship agreements, and clear information about local job opportunities, supplier-development programs, local vendor registers, quality certifications and/or procurement opportunities for smaller firms. So, the measure of performance should not only be the amount of capital investment or installed capacity, but also the number of jobs held in the local community, local firms contracted, wage income created, new firms surviving and the value added within the province.

The topics of road safety, aggregation and reliable market access are an important qualification to the concept of digital rural development and were highlighted by the participants. Zhu et al. (2023) examined the evolution of the coordination relationship between the digital economy and rural revitalization across 14 prefectures/cities in Xinjiang from 2013 to 2019, and concluded that while the coordination between the digital economy and rural revitalization was increasing, there was significant regional disparity, with the digital infrastructure remaining a serious obstacle, and southern parts lagging behind. This is pertinent to Balochistan as a weak physical logistics can't be replaced by digital platforms. Having a phone to the price and not being able to contact the buyer at the proper time, having to meet the grading standards, or being unable to combine enough quantities of fruit together could be a problem for a fruit grower, livestock

household or small processor. The participant evidence thus indicates that a hybrid model can be implemented: Producer groups for each commodity, a collection or aggregation point, a grading process and/or packaging, a transport agreement, and a connection to buyers or price information via the digital media. Such pilots should start with products that are already in demand and look for users instead of building a platform and then seeking users. For the Xinjiang lesson, it may be helpful at a level of coordinated market infrastructure and for Balochistan, greater focus on last-mile transportation, the reliability of routes and the cost of dispersed settlement.

The security results are reliable with empirical literature indicating that conflict impacts the 'feasibility' and the 'reach' of development but do not agree with economic projects necessarily bringing security. Das et al. (2020) reported on the impact of conflict in Balochistan and in the old FATA on the staffing, access, supervision and continuity of services in health delivery. Conflict exposure has the potential to decrease the access to state cash transfers, as demonstrated by Ghorpade (2020), and Charfeddine and Shahzad (2021) demonstrate more broadly how terrorism impact capital flows. As in project implementation, the present participants mentioned the same mechanisms: the first is the increase in transaction costs due to insecure mobility, the second is that smaller investors are discouraged and the third is the weakening of the routine use of infrastructure due to insecure mobility. There is useful comparative evidence from Jammu and Kashmir, where the decreases in violence appeared to be security measures and development programs, suggesting that they were complementary, rather than substitutes, as Kaila et al. (2020) point out. However, Madni and Farid's (2025) Balochistan-specific caution is provided here, as their study shows that small autonomous groups of displaced people have not necessarily stopped insurgent violence in the province due to the development of centralized infrastructure. Together, this is a sequential and practical: a high degree of containment is needed to allow legal movement,

administration and commerce, followed by the “operation” of the development institution. Development is a pathway to resilience, but not in lieu of professional security, political legitimacy and rights-respecting governance.

One of the main findings of the study is the separation of the functions of policy with useful and those with non-transmissible political instruments. They appreciated long-term planning, clear responsibility, monitoring, continuity of services, coordination of skills to jobs and spatial targeting. They opposed the overly hierarchical system of social control, unchecked surveillance, laborer, or the establishment of political requirements for public service. This distinction is consistent with today's policy transfer scholarship. Legrand and Stone (2021) stress that policies do not simply ‘take root’ in other networks and institutions, but that transfer can be blocked if policy ideas are not well adapted to a new institutional setting, as Minkman et al. (2019) demonstrate. The Balochistan application, therefore, is a province and local owned, legally procured and publicly accountable application which needs to be adapted at a district level. The practice may succeed technically, but fail if the community doesn't see it as their own or it is not maintained by local institutions. However, a small effort is viable when the roles, the money and local incentives are obvious. It is stated that these individuals grouped implementation discipline with public legitimacy and see efficiency without legitimacy detrimental to cooperation, and consultation without administrative follow-through create promises without results.

The results collectively show three degrees of transferability. Practices for carefully monitored pilots are (1) participatory water-efficient agriculture, (2) employer linked vocational training, (3) commodity aggregation with market access, and (4) local supplier-development mechanisms. The second is those practices which is only adapted in a significant way and are potentially useful: Targeted poverty programs, coordinated industrial zones, corridor style planning. These need to be clear about eligibility, and a local consultation and provincial

monitoring that ensures fiscal sustainability and that no one is excluded. The third refers to practices that cannot be exported: Laborer, social-control measures that intrude on people's lives, and lack of political engagement, or security measures which use identity or lawful civic engagement as an indicator of risk. The sequence of the practical activities that will come from the interviews is also clear. Pilot areas should first have adequate security for staff, producers, trainers and sites/monitors to move in a predictable way. A baseline should then be conducted to identify local livelihood constraints, water conditions, identified skills requirements and water market opportunities. If there is a possibility of a large expenditure, make the agreements with users, employers or buyers before that occurs. Improvements should be rolled out at a small scale, define measurable targets and measure results for water productivity, permanent income generation, retention of jobs, local procurement, service continuity, etc. Scaling should be based on proven "local benefit" and not just administrative completion.

6. Conclusion

The study aimed to gauge the possibility of providing relevant lessons to Balochistan in the context of selected development practices of Xinjiang. These selected development practices include; Infrastructure-Led Growth, Pairing Assistance Program, Industrialization for Employment, Targeted Poverty Alleviation and Human Capital Development. While maintaining the comparative learning and institutional replication distinction. The results address the first research question by defining a small number of mechanisms the participants thought could potentially be relevant: participatory and water-efficient agricultural management, income support for specific livelihoods, voluntary skills development by the employer, coordination of market connections, development of local suppliers, discipline and continuity in basic administration.

These practices are esteemed for their relevance to the real-life problems faced by the Baloch and not because they are associated with Xinjiang Development-Governance.

The second research question was related to adaptation. The results indicate that there is no selected practice that can be transferred without any changes. Groundwater protection is needed, farmer organizations, maintenance and market linkage are needed for agricultural technology. Interventions for poverty must be based on households and districts and not be cast in a blanket form. There is a need for skills programs to have evidence of employer demand and tracking of work experience and placement. Local recruitment, involvement of suppliers and livelihood protection are essential in order to avoid the creation of economic enclaves in the process of industrial development. In all sectors implementation should be in line with constitutional order and provincial institutions and local participation requirements of Pakistan.

The third research question was about the impact of insecurity on the implementation of development. Safety concerns were cited as an operating constraint that increases costs, limits mobility, decreases supervision, undermines investment confidence, interrupt services and limit the economic utilization of infrastructure. In the study, it is therefore reasonable to speak of the need for security to enable a sequence of development only as a limited one, because development actors must have enough physical and institutional security to be able to work predictably. It does not feed into the idea that the amount of development expenditure will automatically lead to the provision of security. Securing and responsible security is still required and sustainable peace relies on good working civil society and on viable economic prospects.

The fourth research question was the prioritization and rejection. Pilot projects for water-efficient farming, employer-based skills training, selected value-chain projects at local level and supplier development projects seem to be appropriate for careful experimentation. Where there is

strong transparency, local voice, fiscal sustainability and monitoring, poverty alleviation and coordinated industrial/corridor planning are conditionally suitable. In the absence of skilled labor in Balochistan; Labor transfer, intrusive social control and political non-participation and development conditioned on political conformity are not suitable without human development in Balochistan.

So the practical upshot is not an indulgent, but selective one. While the model of coordination, targeting and implementation is evident in certain sectors of the development experience in Xinjiang region, effective adaptation in Balochistan will require the involvement of local institutions, participation of the local population, protection of rights and benefits that can be felt by individual households. A sensible policy trajectory is to create a feasible implementation setting, identify local challenges, negotiate agreements between farmers, employers/buyers, and pilots, pilot at small scale, and independently track livelihood and service impacts and expand only if benefits are maintained. In this sense, what is most useful is not a copy of a regional model, but building development systems that allow 'security to support and strengthen markets and local livelihoods and local livelihoods to support and strengthen security.

On the basis of the above conclusion this piece of research recommend that Rural connectivity initiative i.e. farm-to-market roads, micro-dams, solar Pakistan pairing model, 5-year technical support to districts, Operationalize Gwadar Free Zone and Bostan SEZ with majority of local hiring, Reform TVET, link to CPEC jobs, councils in Quetta, Gwadar, Turbat and Strengthen local governments, third-party audits for the meaningful development in Balochistan. Beside this research study also recommend Future Research: a) Primary fieldwork and quantitative impact assessment of CPEC on household income b) Security-Governance and the role of third party in Balochistan.

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