



SOCIAL AND ECONOMIC POLICY
WORKING PAPER

RECONSTRUCTING WELL-BEING AFTER A DISASTER: BRINGING PUBLIC SERVICE TO THOSE WHO NEED THEM MOST IN CHINA

Hana Brix

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Reconstructing Well-being: Bringing Public Services to Those Who Need Them Most After a Disaster

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Executive Summary

Reflecting on the lessons from international experience and on China's policy context, this paper aims to outline the analytical and institutional framework that would help make essential public services of adequate quality universally accessible and enjoyed by all citizens affected by the earthquake according to their needs. Specifically, this paper is offering a five-pillar framework to support successful reconstruction of essential social services in earthquake-affected localities (listed below and elaborated further in the subsequent chapters). Given this focus, this paper effectively complements China's Master Plan for Reconstruction. Importantly, this focus makes the paper also relevant for other developing countries that may face the challenge of reconstruction after a disaster.

Resumen Ejecutivo

Este documento es producto de la reflexión sobre las lecciones obtenidas de la experiencia internacional y del contexto político en China, y tiene como objetivo esbozar un marco analítico e institucional que podría ayudar a dar accesibilidad universal a los servicios públicos esenciales de calidad adecuada, a fin de que todos los pobladores afectados por el terremoto puedan disfrutar de ellos en la medida de sus necesidades. Específicamente, este documento ofrece un marco de referencia basado en cinco componentes para la restauración exitosa de los servicios sociales esenciales en las diversas regiones afectadas por el terremoto, que se enumeran a continuación y sobre las que se brinda información más detallada en los capítulos siguientes. Teniendo en cuenta este enfoque, este documento complementa eficazmente el Plan Maestro de Reconstrucción de China. Asimismo, las características del enfoque adoptado hacen posible que resulte de utilidad para otros países en desarrollo que puedan confrontar el desafío de las labores de reconstrucción debido a posibles desastres.

Résumé Analytique

Ce document, produit d'une réflexion sur les leçons tirées de l'expérience internationale et sur le contexte politique en Chine, a pour but d'esquisser le cadre analytique et institutionnel qui permettrait de rendre accessible à tous des services publics essentiels et de qualité convenable et dont profiteraient tous les citoyens affectés par le tremblement de terre, en fonction de leurs besoins. Plus précisément, ce document offre un cadre reposant sur cinq éléments pour soutenir la remise sur pied des services sociaux essentiels dans les localités frappées par le séisme (on en trouvera la liste et d'autres informations dans les chapitres suivants). Compte tenu de son objectif, ce document complète bien le Plan directeur de reconstruction de la Chine. Ainsi orienté, ce document s'adresse aussi à d'autres pays en développement qui s'efforcent de relever le défi de la reconstruction suite à une catastrophe.

Introduction

In reconstruction after a major natural disaster, the key role of Government is to promote the well-being of those most unfortunate. This mainly implies bringing essential public services to those who need them most and supporting those least able to recover using their own means.

Following the Wenchuan earthquake in May 2008 in China, the Government of China has launched a gigantic reconstruction effort, showing remarkable commitment and capacity. The enormous attention to each individual human life in the rescue effort has been widely recognized and praised internationally. One of the challenges and opportunities is to put the well-being of the worst affected people first also in the process of post-earthquake reconstruction. In this context, children – who are the most vulnerable and also one of the most adversely affected population groups – will require special consideration.

This paper draws on international experience in post-disaster reconstruction and outlines the institutional and policy framework for reconstructing well-being – namely essential social services – after a disaster. The paper emphasizes the functional, financing and institutional issues that need to be addressed in order to make reconstruction of public services truly contribute to the well-being of the communities affected by the earthquake. Although the paper reflects China's policy and institutional contexts, the proposed five-pillar framework is relevant for other developing countries as well.

Lessons from international experience

Literature review on post-disaster reconstruction offers important insights and lessons.¹ At the conceptual level, certain global values can be identified in terms of both the priorities and process of post-disaster reconstruction. Global values that apply to post-disaster reconstruction relate to the content – particularly prioritization – and to the nature of the reconstruction process. In terms of the content, international research suggests four key priorities in post-disaster reconstruction: 1) *lives and health* to be protected; 2) *the needs of children and other vulnerable groups* to be addressed first; 3) *basic social services* to be restored as soon as possible; and 4) *people's livelihood* to be rebuilt. Regarding the nature of the reconstruction process, international experience implies the importance of *transparency, accountability and citizens' participation* as top values.

Furthermore, practical lessons can be drawn from the actual international experience in post-disaster reconstruction. In particular, experience suggests that: 1) the process and results of reconstruction are better if reconstruction strategy is developed on the basis of a *detailed social impact assessment and needs analysis*; 2) the restoration of services – and their utilization by those who need them most – requires much *more than physical reconstruction of facilities*, including an effective public workforce strategy, funding channels and quality management (this point is discussed in more detail below); and 3) reconstruction policies need to be *coordinated across sectors*, including health, water, sanitation, education, social protection, and others. In

¹ An overview and synthesis are provided, for instance, in UNICEF (2008b) and World Bank (2008). Literature summarizing the lessons from selected individual disasters is listed in the References below.

addition, 4) reconstruction policies need to include a plan for *transition and sustainability* beyond the reconstruction process. Finally, 5) post-disaster reconstruction provides a scope for *innovation and local tradition* and can generate a synergy with the national policies and reforms. With respect to the possible synergy in the context of the national policies and reforms, the international and domestic support available for post-disaster reconstruction may allow to develop, for instance, the public service systems in the disaster-affected localities as pilot and possible models for the entire country.

Specifically, in reconstructing public services, the objective should not be to make public services just available. The objective should be to make essential *public services of adequate quality universally accessible and enjoyed by all citizens affected by the disaster according to their pressing needs*. In this context, international experience implies caution regarding the functional, financing and institutional issues that need to be addressed in order to ensure that the rebuilt facilities provide services in an equitable and fair manner on the basis of actual needs.

Namely, the new facilities built after a disaster will benefit those in need *only if* certain conditions are met, including the following: 1) the entitlements of citizens and obligations of service providers are clearly defined and enforced; 2) funding for essential services is adequate and appropriately allocated & channeled; 3) unfair charges that disqualify the poor from public services and public goods are abolished or appropriately regulated; 4) adequate mechanisms for quality, equity, and accountability in service delivery are established; 5) the past inadequacies of facilities and services are recognized and overcome; and 6) the local governments work closely with citizens.

Policy context in China

China is undergoing a period of comprehensive socio-economic and demographic transformation. The economy has been growing rapidly since the country adopted a policy of reform and opening up in the late 1970s. The real annual growth rate of China's GDP was 9.8 percent during the period 1978-2007. At the same time, China has recorded significant development achievements.²

China has a long tradition of providing women and children with access to basic public services and achieving human development indicators that are higher than expected for a country at its level of economic development. During the past 30 years, however, the improvements in public services and human/social development outcomes have been slower compared to the preceding 30 years and compared to China's spectacular economic development. Furthermore, public service delivery performance and the improvements in human/social development have shown an increasing disparity among population groups. China has set for itself an overarching development objective to create a Harmonious Society, which is fundamentally in line with the UN Millennium development Goals and emphasizes sustainability, equity and citizens'

² This section draws on *China's Progress Towards the Millennium Development Goals, 2008 Report*, Ministry of Foreign Affairs of the People's Republic of China and United Nations System in China, 2008, *Mid-Term Review Summary Report*, Government of China – UNICEF, 2006-2010 Country Programme of Cooperation, and *China Statistical Yearbook*, National Bureau of Statistics.

satisfaction.³ The government has recognized that achieving this objective would be impossible without making public services work for the poor and vulnerable children and women.

Many significant improvements have been achieved in recent years. The Government has adopted a series of policy measures to enhance equity and quality in the delivery of essential social services. With the objective to achieve free compulsory education, the Government has abolished tuition and miscellaneous fees across China's rural and urban areas, and has been providing free text books and boarding subsistence to the poor in rural areas. Social protection has improved as the urban and rural dibao schemes have received greater funding and increased their population coverage and benefit level. The New Rural Cooperative Medical Scheme, subsidized from government budget, has already reached 815 million of rural residents (a coverage ratio of 92% as of June 2008), facilitating their utilization of medical care. In urban areas, those urban residents previously excluded from medical insurance, including children, the unemployed and senior citizens, have benefitted from a newly launched urban residents' basic medical insurance scheme. Furthermore, immunization against 15 diseases and treatment of selected communicable diseases including AIDS, TB and schistosomiasis, have been provided free of charge. Policy initiatives in the health sector have been framed by a comprehensive health system reform launched in 2008.

Across sectors, there have been improvements in public sector management as well as in public finance for social policies and essential services. In an effort to improve the regulatory and enforcement systems, the central government has recently launched institutional reforms aiming at enhancing the coordination and implementation of government policies. At the subnational level, a new government performance evaluation system has been introducing a more balanced set of performance indicators and strengthening the mechanisms for citizens' participation and for accountability in the public sector. The government has also been further enhancing the mechanisms for recruitment, training and performance management in civil service. Finally, to alleviate the negative impact of the global financial crisis and economic slowdown, the Government of China announced a RMB 4 trillion (\$586 billion) fiscal stimulus package, which will contribute also to health, education, housing for the poor and the living conditions in the rural areas.

However, for public services to reach the poor and most vulnerable population groups, evidence-gathering, public finance and public sector governance systems need to be strengthened and the capacity to develop evidence-based social policies for children across sectors need to be enhanced. Progress on this front has been mainly constrained by the limited availability of relevant and reliable data and analysis disaggregated by location, sex, age, and socio-economic status.

Currently, essential public services still fail to meet the needs in many rural and urban areas. The shortages emerge partly due to the general under-funding of essential public services, and partly due to the inequities and inefficiencies in public resource allocation. These, to some extent, relate to China's economic development status, large size and complexity. Partly, they also relate to the challenges in public sector governance, namely the capacity to coordinate

³ China has already met two of the 8 Goals: halving poverty and achieving universal access to primary education, and is likely to meet the other goals on time.

policy among the many agencies involved in any given sector at the central and sub-national level, and the alignment of incentives and resources with national policy objectives among the different levels of government and providers. For instance, at the level of service providers, the existing provider payment system, relying on user fees, distorts the incentives in the provider system toward revenue maximization and away from the needs of the poor and vulnerable.

Following the Wenchuan Earthquake on May 12, 2008, China has undertaken a gigantic rescue, relief and reconstruction effort. The early actions and results were impressive, including an unprecedented endeavour to protect human lives, and immediate funding, supplies and free essential services for the affected population groups. The Government established a Relief Work Group under the State Council comprising 9 cross-ministerial groups (Emergency Response, Communication, Public Health, Water, Social Security, Livelihood, Production, Earthquake Monitoring, and Post-earthquake Reconstruction) to promote coordinated approaches.

In August 2008, the Government launched a Master Plan for Reconstruction to outline the national post-earthquake reconstruction strategy. Against the background of international values and experience, the Master Plan has several important strengths. In particular, the Master Plan was developed by a cross-ministerial group, in a coordinated and participatory manner (the Master Plan was finalized only after a draft was made publicly available along with a large-scale quest for public opinion). Furthermore, at a conceptual level, the Master Plan rightly emphasizes the principle “People first”, equity, the restoration of essential public services of adequate quality for all, and support to the vulnerable population groups.

Policy and institutional framework for post-disaster reconstruction of public services

Reflecting on the lessons from international experience and on China’s policy context, this paper aims to outline the analytical and institutional framework that would help make essential public services of adequate quality universally accessible and enjoyed by all citizens affected by the earthquake according to their needs.

Specifically, this paper is offering a five-pillar framework to support successful reconstruction of essential social services in earthquake-affected localities. The five pillars are listed below and elaborated further in the subsequent chapters.

Given this focus, the paper effectively complements China’s Master Plan for Reconstruction. Importantly, this focus makes the paper also relevant for other developing countries that may face the challenge of reconstruction after a disaster.

The Five-Pillar Framework

1. Defining the Scope of Essential Public Services

Only a clearly defined and properly funded and implemented service package will make it possible to assure equity and fairness in access to essential public services in earthquake-affected localities. Introducing such a package as part of the reconstruction strategy would reduce the risk of rationing essential public services according to the citizens’ ability to pay for services.

Instead, introducing such a package would enhance the rationing by the type of service according to its cost-effectiveness and social value (including equity and fairness, child rights, gender equality, and so on).

Defining clearly the scope of essential public services to benefit the affected citizens is important from the government's as well as citizens' perspective. For government, clarity about the scope of essential public services will allow for appropriate financial and development planning and for establishing effective mechanisms for policy implementation. For citizens, it is important to know the content of their entitlement to public services, so that they can adjust their service utilization and their interaction with the providers of services accordingly. More broadly, knowing exactly the scope of their entitlement to public services will allow the affected citizens to plan for their future, including children's education, skill development and investment in new income opportunities.

The package of essential public services needs to be carefully designed to be affordable and to include those interventions that are most cost-effective and have the highest social value. In social sectors, the package would need to include several major components described below.

1.1. Essential health package

Universal access to the essential health package will be of critical importance to the earthquake-affected population and (directly and indirectly) will have a long-lasting effect on social and economic development in the affected localities. Moreover, roll out of an improved service may serve as a model for other localities that are striving to improve their health services, particularly in the context of the health sector reform process in China.

The minimum essential health package for all citizens in the earthquake-affected localities should include:

- *Public health functions*, including:
 - Dissemination of appropriate information on healthy lifestyles, nutrition (particularly before and during pregnancy and for infants and young children), sanitation, hygiene, tobacco control and health-seeking behavior
 - Disease surveillance (communicable and non-communicable)
 - Health- and hygiene-related inspection and monitoring of communities and public facilities (schools, restaurants, hospitals etc), and
 - Preventive health and safety-focused cross-sectoral programs, such as safe water and sanitation, environmental safety, injury prevention, and food safety and quality.

Health, hygiene and nutrition promotion, injury prevention, water and environmental safety programs would be of particular significance in earthquake affected localities.

- *Public health services*, including:

- Health screening and referral programs (including but not limited to pre-marital screening, eye health and skin care)
- Micronutrient supplementation for vulnerable groups (infants and young children, pre-pregnant and pregnant women)
- Vaccination services (routine and supplementary, as needed)
- Prevention, detection and treatment of infectious diseases (such as tuberculosis, vector-borne diseases or outbreaks of respiratory or diarrhoeal disease)
- Sexual and reproductive health care, including family planning, and
- School-based screening and health services (including nutrition supplements in poor areas).

Nutrition supplements and prevention will be particularly important for children and pregnant and lactating women in earthquake-affected localities.

Public health services should be free of charge and actively promoted by local governments to ensure universal coverage.

- *Essential clinical care* (including essential diagnostic tests, clinical services, and Western and traditional Chinese medicines) related to:
 - Pregnancy and child birth, perinatal conditions and the common serious illnesses of infants and young children like pneumonia and diarrhea.⁴
 - Common acute and chronic outpatient conditions, including non-communicable diseases and mental health issues.
 - Long-term physiotherapy and rehabilitation needs for those who have been disabled or severely injured by the earthquake.

Especially essential clinical services for women and children, disability services and mental health care will strongly affect the well-being of the future as well as the current generation in the earthquake affected localities.

Essential clinical care should be accessible by and affordable to all. In addition to subsidized or free transport for communities and providers in remote areas, this may imply free services for the poor and those most adversely affected by the earthquake. This is more fully discussed in Recommendation 2.

1.2. Water and sanitation

Universal access to safe water and sanitation is included above as one of the key public health functions of the government.⁵

⁴ The UNICEF-MoH Mother-Baby Package materials provide the basic content of essential services for mothers and children.

Access to safe water and sanitation will have a strong impact on the future human and social development status of the earthquake-affected population, including infant mortality, maternal mortality, and the incidence of diseases.

1.3. Social protection

For those worst affected by the earthquake, social protection services can be the only hope allowing them to start normal lives again, reclaim a future with human dignity, and become economically and socially active to break the vicious circle of poverty and failure. For many others, well designed social protection schemes can provide the most basic security in life, including the means to access other essential services, such as essential healthcare or upper secondary education, and limit the long-term impact of the earthquake. Hence, social protection schemes can have a strong positive social impact – indirectly (by facilitating human capital development and the creation of new income opportunities) as well as directly (by allowing people to meet their most basic needs).

Social protection is effective only when schemes are well designed and appropriately targeted to reach the poor and vulnerable, and adequately funded as discussed in Recommendation 2.

- *Minimum income maintenance (dibao)* transfers need to become available to all households impoverished by the earthquake. *Dibao* transfers have been known to be a generally good targeting mechanism in China’s rural and urban areas alike. The *dibao* targeting mechanism could be used also for other social protection schemes, especially medical financial assistance.

For the earthquake-affected population groups, the *dibao* scheme will be of tremendous importance in complementing and gradually replacing the role of the *compensation transfers*, which have been introduced by the government in the aftermath of the earthquake.

Special *dibao* allocations could be considered to support household with small children, orphans, children who have lost one parent, disabled persons, and pregnant women.

- *Social protection in health* needs to ensure access to essential healthcare and adequate financial protection, through broadly-based resource pooling and risk sharing, to every citizen in earthquake-affected localities.

All local social health security schemes in the affected localities need to include essential clinical care in their benefit packages, reflecting the specific needs in the earthquake-affected localities.

In the earthquake-affected localities, the rural cooperative medical system and other applicable social health insurance and financial assistance schemes need to be predominantly and appropriately tax-funded. Since the localities are poor, the contributions from the central and provincial government levels need to meet the local needs.

⁵ In the pre-disaster period, 50% of the rural population did not have adequate safe water supply and household sanitation. The water supply and sanitation in 50% of health facilities was inadequate and worse in schools. These factors directly and indirectly contributed to increased disease burden, and undermined efforts to improve health and education of children.

All citizens in the earthquake-affected localities should be automatically enrolled without the need of paying any premium (the collection of premiums in earthquake-affected localities as a condition to accessing essential clinical healthcare is inappropriate).

The level of household contributions in any form needs to be affordable (for instance, with co-payment levels of around 20 percent, rather than 60-70% which is currently typical in China's rural areas), with a nominal cap on households' total out-of-pocket expenditures for essential healthcare, and with financial assistance scheme to cover the contributions, including co-payment, on behalf of poor and low-income households.

- *Cash transfers*, such as *conditional cash transfers* and *voucher programs*, could be considered to encourage and facilitate utilization of essential services that either generate strong positive externalities, such as vaccination, micronutrient supplementation or regular health checkups, or are highly advantageous to the local social development, such as upper secondary education.⁶ Targeted cash transfers could be designed and targeted so as to help overcome the negative impact of fees on the utilization of essential services by the poor and low income households.
- *Special services*, such as *general psychosocial services* for personnel returning from rescue and relief work in the earthquake-affected localities and for general population adversely affected by the earthquake.

1.4. Child protection

As a result of the earthquake, many children including orphans have become vulnerable to different forms of abuse, neglect and exploitation. Child protection services will have a critical influence on the fate of these unfortunate children. Moreover, child protection services can alleviate both the risks and negative impact facing children in the earthquake-affected localities. Government reconstruction strategy could aim at following international good practices in introducing holistic child protection services.

- *Psychosocial and counseling support* to children affected by the earthquake, including orphans and those who have been disabled, severely injured and most adversely mentally affected by the disaster. Different age groups require age specific interventions based on child development stages and those who have been traumatized will require long-term professional counseling support.
- *Support to orphans*, emphasizing the priority of care giving by relatives, followed by adoption to relatives, domestic adoption over international adoption, and alternative care (i.e. foster care, community-based residential care). Institutional care is to be used as last resort. The functions of the institutions can be progressively changed to community service centers for vulnerable children (including children with disabilities), gradually minimizing the function of orphanage. When institutional care has to be used, the environment should be designed to resemble family-type care.

⁶ For more options and details, see for instance "A Review of UNICEF's Role in Cash Transfers to Emergency Affected Populations." EMOPS Working Paper, 2007.

- In the medium and long term, it would be useful to aim at creating a *holistic child protection system and network* that can address both the prevention of and responses to different forms of abuse, neglect and exploitation. The holistic approach is to provide coordinated services for vulnerable children by bringing together different actors across sectors, including law enforcement, education and health sectors, legal education and services, community planning and counseling (qualified social workers) as well as the justice sector. International experience suggests that this approach is more effective in prevention, response and case management compared to a set of fragmented, vertical or compartmentalized programs managed by individual line agencies to address individual phenomena.⁷

In order to implement such an integrated and system-based approach it is vital to establish a recognized and authorized focal agency – Child Protection Unit – which can coordinate and refer services, and manage appropriate tracking and monitoring mechanisms, including a database on vulnerable children (a case management system). In the earthquake-affected localities (and gradually nation-wide), the integrated child protection system and network mechanisms would need to be created at the county or district level (with a provincial financing and human resource support as discussed below), and ensure outreach of services throughout the community.

1.5. Education

All children in the earthquake-affected localities must have a guaranteed and free access to *nine years of quality universal education* (entirely free of charge, with no fees charged by or on behalf of schools). The use of boarding schools needs to be considered carefully. The central government should first encourage local government to fully explore the options for establishing quality schooling near children's homes and with appropriate transport arrangements. If boarding schools are necessary, boarding fees (and any other related fees) should be waived – and fully covered by government – for all children from poor families.

Furthermore, the reconstruction strategy should consider measures to enhance access to *upper secondary education* and *early childhood development services*. Upper secondary education is critical for the future integration of the young earthquake-affected generation in the economy and society. Enhancing enrollment and completion rates in upper secondary education nation-wide would contribute to skill upgrading of labor force and hence to sustaining China's fast economic development.⁸ Analyses of returns to education suggest that the benefits of upper secondary education accruing to the local and national economy and society exceed the benefits accruing to

⁷ For reference, see for instance *Inter-agency Guiding Principles on Unaccompanied and Separated Children* supported by all leading international agencies on this matter and published by the International Committee of the Red Cross (2004), and *Community Based Care for Separated Children* by Save the Children (2003).

⁸ In the international context, China's enrollment and completion rates in upper secondary education are low relative to its economic development achievements and prospects. Countries that have been successful in developing skilled labor force, such as Korea, have heavily invested in upper secondary education to achieve nearly universal coverage.

the individual, which supports the case for a stronger government support.⁹ Early childhood development services could be introduced in earthquake-affected localities at village and community level, to help children overcome the negative psychological impact of the disaster, help build their potential, and reduce the risk of future school dropout.

Moreover, the reconstruction strategy could also consider measures to support vocational training, non-formal schooling and bridging courses for school dropouts and young people outside the formal school system prior to their legal working age. It is conceivable that many households affected by the earthquake will tend to involve children in the reconstruction of family house and livelihood, and hence reduce school attendance. Hence it would be appropriate to introduce a policy framework to facilitate non-formal education at the local level, involving flexible hours and teaching methods to suit rural communities, and to enable children to undertake “bridging courses” and examinations to re-enter the formal schooling system when circumstances permit.

2. Developing Adequate Financing Mechanisms

Financing the delivery of public services in earthquake-affected localities will need to be largely the responsibility of the government. Since the affected provinces are relatively poor, a large contribution will need to come from the central government. Important questions to address as part of the reconstruction strategy include funding criteria and channels, intergovernmental fiscal relationships, and provider payment mechanism.

2.1. Funding criteria and channels

In its overall spending on public services in earthquake-affected localities, the government needs to promote equity, effectiveness and efficiency. Measures to minimize waste and promote efficiency include reallocating funding toward cost-effective healthcare and quality primary and secondary schooling, well-targeted social protection, building appropriate rural capacity to deliver essential healthcare and quality schooling. In addition these measures include limiting funding on any unfair benefits that are gained by a selected few, such as on tertiary hospitals and tertiary education.

Government financing needs to be sufficient and well-allocated in order to guarantee that all citizens in the earthquake-affected localities are able to enjoy the essential package of public services outlined above.

Although the responsibilities for financing and implementing the package of essential public services may be generally decentralized in China, the central government will need to oversee and guarantee proper implementation – holding the provincial governments accountable – to ensure that all citizens in the earthquake-affected villages, townships, counties and districts will enjoy essential public services.

⁹ In case of tertiary education, the returns accruing individually upon completion are generally high and justify school fees, while government support can target less profitable study areas, such as basic science, and poor and disadvantaged students.

In line with Recommendation 1 above, the funding criteria need to be defined so as to achieve the objective of universal coverage of essential public services. The criteria include the following four complementary options:

- *Utilization free of charge*

No fees should be collected or associated with the utilization of public health functions and public health services, basic schooling, and child protection.

Government budget needs to fully fund public health functions (including investments associated with safety programs, such as capital investment needed to ensure access to safe water and sanitation in earthquake-affected localities) and public health services, 9-year compulsory education, essential child protection services and social protection.

- *Utilization on the basis of affordable contributions*

Low fees (household contributions), at a level affordable for every household in earthquake-affected localities, can be collected and associated with the utilization of essential clinical care, boarding schools, early childhood development services, and upper secondary schooling.

For the poor and disadvantaged population groups, such as the worst earthquake-affected households, the fees need to be partly or fully covered by social protection schemes in order to ensure universal coverage.

Government budget needs to fully cover the gap between the cost and the volume of contributions that is to be considered affordable. This can be done through appropriate social protection schemes.

For instance, the government financial contribution to essential clinical care could flow through the local rural community medical systems and other applicable local social health insurance schemes (which in earthquake-affected localities would need to be perhaps entirely funded from government budget, without relying on the collection of premiums). In this respect, it is vital that these schemes emphasize essential clinical care in their service benefit packages and limit co-payment to a level affordable for all, with medical financial assistance targeting the poor.

Similarly, funding to facilitate the access of the poor to boarding schools (if necessary), early childhood programs and upper secondary schooling could flow through the local social protection schemes.

- *Utilization for fees reflecting full cost recovery*

Fees can reflect full cost recovery for water and sanitation services. Particularly for water, fees set at full cost recovery help reduce waste and promote efficient use.

To ameliorate the impact of such fees on the poor and disadvantaged households, government can introduce structured water tariffs to lower the price of a limited volume (internationally suggested at about 20 liters of safe water per person per day), while setting the price at or above a full cost recovery for higher volumes of consumption.

Furthermore, cash transfers to the poor and disadvantaged population groups, discussed below, are vital to ensure universal coverage and the associated public interest.

- *Universal coverage guarantee for the poor and disadvantaged population groups*

For the poor and disadvantaged population groups, including the households worst affected by the Wenchuan earthquake, social protection schemes, including cash transfers and other support programs need to fulfill their function of a universal coverage guarantee with respect to the utilization of essential services.

To be truly effective, the guarantee needs to cover the cost associated with all essential public services and with goods and services that are directly or indirectly associated with the utilization of essential public services. Examples of such goods include school uniforms and text books. Examples of such services include local transport (to the nearest providers of essential health services, primary and secondary schools, and child protection units), accommodation in maternity waiting rooms, any required tutoring or extracurricular activities associated with primary and secondary education, boarding school fees, and others.

Government budget needs to fully fund the needed social protection schemes for the poor and disadvantaged population groups. Full funding is needed for special financial assistance (such as the medical financial assistance, boarding school vouchers or fee waivers, upper secondary schools vouchers or stipends, and similar) to the poor.

As the Government has successfully done in the case of funding nine-year compulsory schooling in Western provinces, it could set medium and long-term targets for its spending on essential public services across sectors in earthquake-affected localities (and also nationally). The targets could be elaborated for the central, provincial, prefecture, county and township government levels – possibly accompanied by caps on non-essential spending within sectors.

Complementing the targets, the government could further enhance output-based budgeting approaches. Output-based budgeting¹⁰ would allow for greater autonomy and flexibility at the local level in terms of the mix and prices of inputs (including equipment, supplies, and staff cost), which can help manage public service delivery in the midst of rapid reconstruction.

In order to motivate providers toward effectiveness, efficiency, quality and good overall performance, government allocations can be made on the basis of population criteria and expected volume of services through, for instance, output-based budgeting.

They need to be accompanied by strict performance monitoring on the basis of well-defined criteria (captured in an appropriate information system), such as school enrollment and drop-out rates, immunization coverage, preventive and health promotion programs, effective utilization of services, and so on, as discussed in Recommendation 5.

2.2. Funding in the context of decentralization

In order to reach providers in all earthquake-affected localities – both directly and through social protection schemes – the government needs to optimize the assignment of responsibilities across government levels and government agencies. In particular, spending responsibilities also need to be assigned in line with the capacities across government levels.

¹⁰ Output-based budgeting and other performance budgeting approaches are discussed, for instance, in *Does Performance Budgeting Work? An Analytical Review of the Empirical Literature*. International Monetary Fund Working Paper 05/210 (2005). Also see *Performance Budgeting in OECD Countries*. OECD (2007).

For instance, given the weak capacity in the earthquake-affected localities and possible efficiency gains, the rural cooperative medical system and health insurance schemes could be organized and managed at the provincial rather than county level. The reconstruction effort would be an excellent opportunity to test this innovative model, which has already been recommended for the entire country by many international and domestic experts alike in their proposals for health system reform strategy.¹¹

Provincial governments will need to ensure appropriate and equitable allocation of funds across government levels and localities within the province. The provincial plans of action for children, for instance, need to ensure that each county and district have the funding and human resources needed to conduct appropriate monitoring, prevention and case management for child protection. (Recommendation 5 discusses the associated accountability and performance monitoring issues.)

Since most of the earthquake-affected localities are in relatively poor provinces, the financial contribution by the central government needs to be sufficiently large to avoid funding gaps at the local level. The central government will need to provide both general and earmarked transfers that would be clearly defined on the basis of criteria that reflect the local needs related to essential public services. For efficiency purposes, the transfers could be allocated through the central treasury system directly to the responsible local government levels to fill the funding gaps that are beyond the provincial fiscal capacity.

2.3. Purchasing and provider payment mechanisms

As an innovative approach to achieve universal coverage more rapidly, reduce cost and enhance equity and quality in public service delivery in earthquake-affected localities, the government could explore the option of introducing an active purchasing function into the public service delivery system and competition among – public, private or other – service providers for contracts rather than individual citizens. Hence, purchasing of service outputs by government would also facilitate possible public-private participation initiatives in public service delivery, which could effectively fill some of the existing gaps in the earthquake-affected localities.

Specifically, the government would be “purchasing public service outputs” (reflecting the above criteria) rather than “paying for inputs” such as staff salaries and operating costs. Such purchasing could be done either through specialized government agencies (such as the health department or education department at the provincial level) or other specialized agencies (such as the rural cooperative medical system or health insurance schemes, ideally also managed at the provincial level in order to have the necessary capacity and clout, among other advantages). Particularly in the health sector, citizens could greatly benefit if the specialized agencies interacted directly with service providers regarding selective contracting, prepayment, reimbursement, and the cost, effectiveness, efficiency and quality of service delivery. Adequate safeguards for independence would need to be assured.

¹¹ This recommendation can be seen in several proposals that have been prepared and submitted to the Government Task Force co-led by NDRC and MOH to develop China’s health system strategy since 2006.

Purchasing of public service outputs could be supported by further developing output-based budgeting (discussed above) and performance monitoring approaches within government and within the respective public service sectors.

Furthermore, particularly in the health sector, a well designed provider payment system is a necessary condition for promoting effectiveness, efficiency, cost control and quality in the delivery of care. As part of the reconstruction strategy for health, it will be important to replace fees for services as a main payment method for providers to reduce perverse incentives in the delivery of healthcare. For instance, it is necessary to weaken the link between remuneration of health staff and the profitability of care they provide. Government needs to establish – and implement directly for public health and indirectly for clinical care – a combination of different provider payment methods including capitation and diagnosis related groupings. It would be unfortunate if new hospitals were built in earthquake-affected localities and many people in need could not afford to use them because of fees.

All of the above assumes the development of an appropriate performance evaluation mechanism (which is outlined in Recommendation 5), including for instance an authority with independent quality assurance and patient protection functions, and the power to recommend cancellation of contracts or authorized provider status for providers of services deemed to be low quality.

3. Building an Effective Public Service Delivery System

Ensuring that the public service delivery system effectively works for the poor and vulnerable population groups so that they can utilize essential public services of adequate quality on the basis of need is a challenge under any conditions, and it is particularly challenging in the aftermath of a major disaster. The challenge at hand, however, may become an opportunity for China to undertake innovative measures with respect to the structure, functions, location and design of public service facilities, as well as the relationships between and responsibilities of the different levels within the hierarchy of services.

3.1. Functions, location and design of facilities

In developing the provider system in earthquake-affected localities, the government should not recreate the facilities and provider structure of the past. The location of facilities to deliver services needs to be carefully considered from the perspective of local needs and constraints, and the evolving alternative arrangements (such as considering the option of a cheap transport versus boarding schools, solving the possible trade-off between convenient location and local capacity in emergency obstetrical care, or coordinating industrial and agricultural development with the protection of safe water sources). All facilities need to be designed so as to be safe, user-friendly and both conceptually and physically modern, complying with China's national standards and to the extent possible also with international good practice.

Government needs to clarify services that should be delivered at each level of service delivery and by which facility. Having done so, government can adjust the structure of the provider system, resource requirements (such as the level of skills, technologies and medicines in health, or qualification and training of teachers and equipment in education) and performance targets.

As part of reconstruction of health facilities, for instance, the government needs to optimize the structure of providers in line with their defined functions. In the earthquake-affected localities, this could be done in a comprehensive manner across township health centers, community health centers, hospitals, mother and child health (MCH) centers, centers for disease control, family planning institutions and other agencies related to vertical programs to reduce duplication and improve efficiency and quality of healthcare.

Table 1 and Box 1 below suggest a recommended structure for MCH services.¹² In the proposed structure, village clinics in the more remote and less developed rural areas (particularly rural type IV areas) are entrusted with a greater scope of work. This approach may not be feasible in the short term since the current generation of village health workers may lack the knowledge and training needed to conduct the outlined scope. Hence, the government may instead increase the number of *recognized and supervised* (public or private) clinics at village level, and strengthen the capacity of township clinics to provide outreach services, while addressing the associated human resource and transport needs. It is believed that the government's reform package for the health sector considers both these alternatives, and earthquake-affected areas could thus serve as demonstration sites for either or both of them.

¹² Adapted from the Joint Review of the Maternal and Child Survival Strategy in China (2006)

Table 1: The proposed division of functions for MCH services

	Village Clinics	Township/Community Health Centers	County/District Hospitals
Type IV rural areas	<p>Skilled attendance at delivery (if feasible) Basic curative care for diarrhoea, pneumonia and deworming Antenatal care, post natal care, child growth monitoring and vitamin & mineral supplementation Referral for sepsis Social mobilization for referral Outreach services Health education and promotion</p>	<p>Facility based: Basic essential obstetric and neonatal care (except vacuum delivery) Integrated management of childhood illness Referral for obstetrical and neonatal complications and severe sepsis Outreach: EPI Antenatal care, post natal care</p>	<p>Service delivery: Comprehensive obstetric and neonatal care (including basic emergency obstetrical care, blood bank, C-Section, treatment of eclampsia and management of obstructed labor) Comprehensive curative care Preventive and promotional activities for catching area population Support: Organization of referral, surveillance, monitoring and evaluation</p>
Types II & III rural areas	<p>Basic curative care and treatment of diarrhoea and pneumonia Social mobilization for referral Outreach services Health education and promotion</p>	<p>Facility based: Basic emergency obstetrical care and neonatal care (except vacuum delivery) Integrated management of childhood illness Emergency and curative care Referral for obstetrical and neonatal complications and severe sepsis Outreach: Antenatal care, post natal care, EPI, child monitoring and vitamin supplementation Follow-up of low birth weight babies Health promotion</p>	<p>Service delivery: Comprehensive obstetric and neonatal, as above Comprehensive curative care Preventive and promotional activities for catching area population Support: Organization of referral, surveillance, monitoring and evaluation Additional interventions: Prevention of mother to child transmission of HIV (where needed) Child injury prevention</p>
Types I rural areas and urban areas	<p>Social mobilization and health education if feasible</p>	<p>Facility based: Basic emergency obstetrical care and neonatal care (including vacuum delivery) Integrated management of childhood illness Emergency and curative care Referral for obstetrical and neonatal complications and severe sepsis Outreach: Antenatal care, post natal care, EPI, child monitoring and vitamin supplementation Follow-up of low birthweight babies Health promotion</p>	<p>Service Delivery and Support Functions: Comprehensive obstetric and neonatal, as above Comprehensive curative care Preventive and promotional activities for catching area population Support: Organization of referral, surveillance, monitoring and evaluation Additional interventions: Prevention of mother to child transmission of HIV (where needed) Child injury prevention Birth defect screening and prevention</p>

Box 1: Distribution of MCH services by provider level and rural typology

In accordance with the principle of equity, all women and children, regardless of where they live or where they are born, are entitled to an essential package of basic obstetric and newborn care, as well as effective preventive care, treatment and nutrition interventions. The delivery of such a package to all women during pregnancy and to all young children has been shown to have a major impact on the survival and well being of women and children.

In China, over 75% of maternal and child mortality results from a small number of preventable or curable causes, and 79% of neonatal deaths occur within the first seven days after birth. These deaths are closely related to the quality of obstetric care and postnatal follow-up; they can be addressed by the same level of interventions as those that reduce maternal deaths. The major strategy should therefore be to provide quality antenatal and basic essential obstetric care for women, along with essential newborn care and integrated child health care (including integrated management of child illness), and to ensure that these are accessible to all.

Moreover, these packages of MCH interventions should take into account the specific characteristics of different types of rural and urban areas. In-hospital services, outreach services and preventive services are all important. The Table lists the service delivery mechanism proposed for three different rural and urban types. In summary:

Type IV rural areas. In these areas there would be universal coverage of an essential package of care, delivered as much as possible by township hospitals but complemented by village doctors in very dispersed populations. Township hospitals that can meet the basic requirements would provide basic obstetric and newborn care (excluding vacuum extraction) and integrated management of child illness, while also providing outreach services for immunization, nutrition counseling and health education. These activities would be complemented at village level by large-scale social mobilization and the promotion of antenatal care and hospital delivery. Village doctors would provide an essential package of preventive and basic treatment services following clinical algorithms, and occasionally safe delivery in clean, hygienic conditions for women who for whatever reason are unable to deliver in hospitals. County hospitals back up township and village levels, providing comprehensive emergency obstetrical care and neonatal care (including vacuum extraction, blood bank, surgery and care of low birthweight infants), referral and supervision.

Type II and III rural areas. As in type IV areas, there should be universal coverage of an essential package of care in these areas, and special emphasis given to those counties with the highest mortality rates and the largest absolute numbers of deaths. The emphasis would be on building the capacity of township hospitals and outreach programs. At township level or above, basic obstetrical and newborn services (excluding vacuum extraction) would be delivered, along with integrated management of child illness, programs for prenatal checkups, postnatal follow-up, EPI, neonatal and child monitoring and micronutrient supplementation. At village level, the emphasis would be on social mobilization and health promotion, as well as the provision of basic treatment services following clinical algorithms. Hospitals at county level would provide comprehensive emergency obstetrical care and neonatal care, transfer and support, as in type IV rural areas. Since capacity is greater in type II and III than type IV rural areas, other components such as child injury prevention, screening for birth defects, introduction of new vaccines and Prevention of Mother to Child Transmission of HIV could be implemented in these areas if local capacity allows it.

Type I rural areas and urban areas. Ensuring delivery of the essential package of MCH services to the poor and to the migrant population is important. These groups account for the majority of maternal and child mortality in type I rural areas and in urban areas, and face challenges that are similar to those found more widely in types II, III and IV rural areas. Township hospitals and MCH centers would provide basic obstetric care (including vacuum extraction), newborn and child care and outreach services. Social mobilization and health education would be provided at village and neighborhood levels. At county level and above, hospitals would provide comprehensive emergency obstetrical care and neonatal care, transfer and support. Along with the additional interventions mentioned above for Types II and III rural areas, it would also be possible to give priority to birth defect screening and prevention in these areas.

In all areas, emphasis should be placed on strengthening township-level services and decreasing reliance on village doctors for clinical care. The Review found that quality of services at township level are frequently sub-standard, and stressed the need to develop service standards and guidelines for basic emergency obstetrical care and neonatal care and health education, to ensure that basic facilities are in place for these services, and to provide corresponding training. These improved services and standards must be supported by improved transport, referral and communications across the levels.

In the context of the reconstruction strategy for education, the government may wish to consider the framework of child-friendly schools as a successful model that has already been piloted in China and could be later promoted nationwide. This framework is captured in Figure 1 below.

The location of schools needs to be considered carefully in order to ensure access even in the most remote mountainous areas. The use of boarding schools should be kept at minimum at least in primary education by emphasizing the well-being of children and exploring alternative arrangements. Such alternative arrangements include appropriate local transport (which could be free or subsidized for school-aged children) and human resource strategy in education discussed in Recommendation 4.

In child protection, the reconstruction offers a unique opportunity to reconsider the functions, locations and design of child welfare institutes, transforming them from large orphanages into a network of small community-based centers of holistic child protection services as discussed in Recommendation 1.

With respect to safe water, reconstruction should adhere to the universally adopted minimum standard – a supply of 20 liters per person per day from a source not farther than 500 meters from home and with no more than 100 meter vertical drop, within 20 minutes roundtrip.¹³ Compliance with China’s minimum quality standards needs to be ensured. This in turn requires defining and protecting water source areas (prohibiting pollution in upstream areas for surface water and protecting groundwater based on the geology), which has implications for the location of both wells and polluting operations such as industry and agricultural activity. Furthermore, any new building project should be required to collect and dispose waste water through sewers and treatment plants or through properly designed and timely emptied septic tanks.

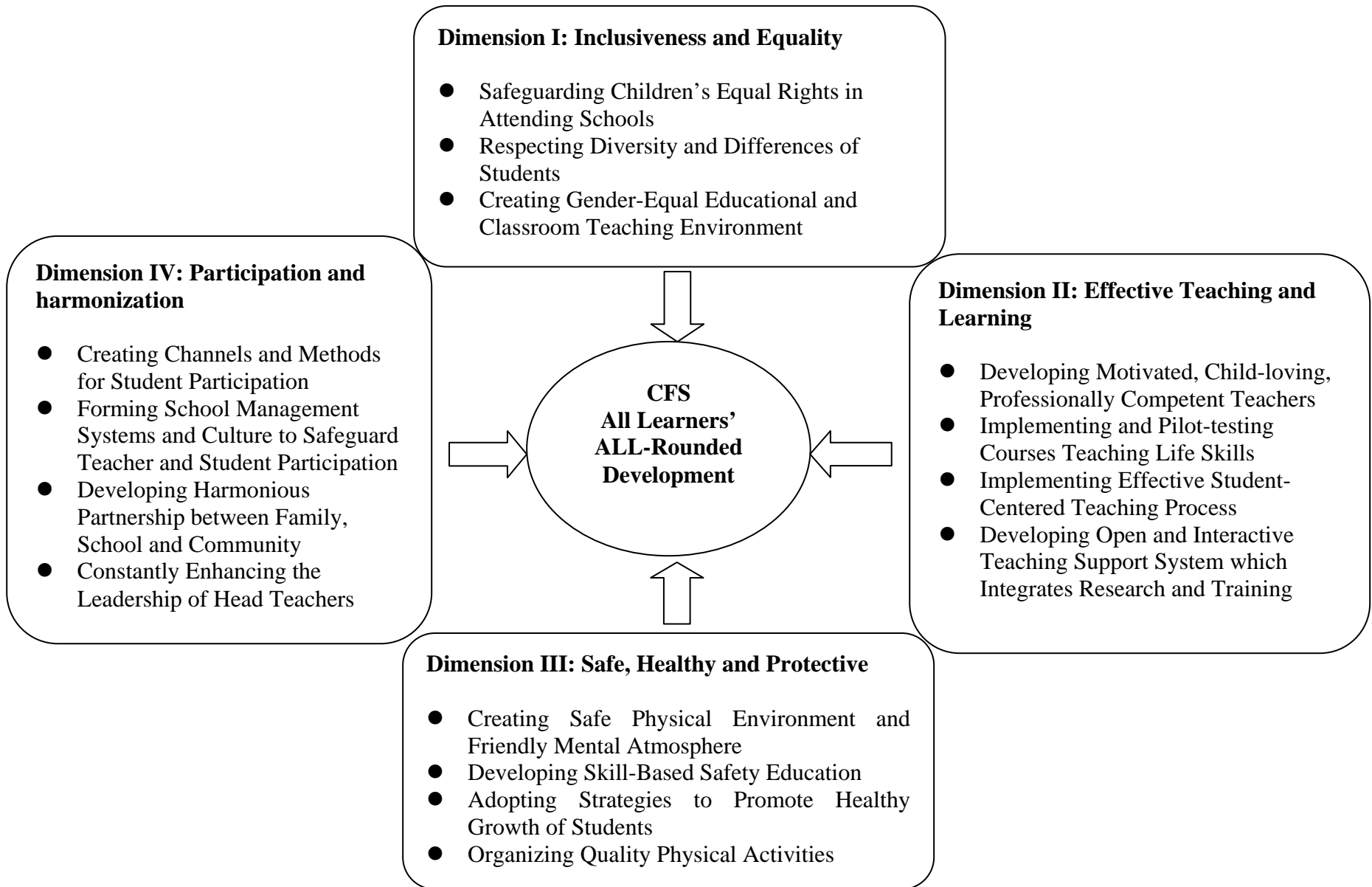
Regarding sanitation, at the very minimum, well managed simple latrines need to be easily accessible from all homes, and within public buildings, schools and health facilities. Simple latrines are adequate and can operate without smell and flies, if simple management rules are obeyed. They are less costly, easier to build by the owner and less qualified workers and allow faster achievement of “sanitation for all” in earthquake-affected localities (and countrywide).

The physical layout and design of county and township hospitals should ensure that facilities are mother- and baby-friendly according to international or Chinese standards. In addition, appropriate, perennial water, sanitation and hygiene hardware and facilities must be fully incorporated into new or rehabilitated county and township hospitals.

There is a good opportunity to simplify the national guidelines with respect to the design of the latrine sub-surface component. The requirement of having a special lining in every sanitary latrine is unnecessary and costly. Since virtually all micro-organisms die within a 30-60 meter perimeter of the toilet, unlined sanitary latrines generally do not pose environmental or health risk.

¹³ When water supply is provided in the home, 50 liters per person per day or more may need to be planned, unless individual meters and well structured water tariffs discourage excessive consumption.

Figure 1: Framework of Child Friendly Schools



3.2. Standardization and rational use

For earthquake-affected localities (and, gradually, nation-wide), it would be very valuable to establish guidelines to standardize service quality and essential services across sectors, rationalize use of equipment and supplies, and facilitate the monitoring of the performance of health professionals, teachers, social workers, water treatment personnel, sanitation and hygiene inspectors and so on.

In health, it will be useful to establish that providers at each level be allowed to provide only those services that fall under the respective national guidelines, and would be monitored for meeting the national standards. For instance, village doctors should be subsidized to participate in the provision and/or promotion of public health services, as an alternative to their current predominant role in provision of clinical services. Their clinical role should be limited to subsidized provision of basic services based on treatment algorithms and a limited armamentarium of oral drugs, carefully supervised by township level staff. This innovative model, which has been already under consideration in China, could be later considered for scaling up.

The reconstruction strategy could encourage effort to enhance the formulation and effective implementation of core national standards to apply to service delivery in each sector. In this context, it is important to develop and implement guidelines for case management, referral and gate-keeping in healthcare and child protection systems.

Accordingly and as recommended already, it will be necessary to strengthen the lower level capacity to deliver improved essential health services, education, child protection and social protection, and the capacity to monitor, supervise and evaluate performance in service delivery (as discussed in Recommendation 5).

In the reconstruction process, it would be useful to clarify that equipment and supplies at each facility need to comply with its designated function. Accordingly, relationships between suppliers (such as pharmaceutical, textbook or equipment suppliers) and the respective authorities (such as hospital administration or school administration authorities) should be regulated. Either a level playing field should be established (via tender and bid procedures) or an independent authority made responsible for authorizing suppliers of government facilities. This would need to be linked to the financing mechanism discussed in Recommendation 2.

For health facilities, for instance, the government needs to clarify which medicines can be provided by which providers according to their function and in line with standard treatment guidelines. To monitor the use of medicines, government needs to require that all providers have access to clinical algorithms, use appropriate prescription formularies and enter generic names on prescriptions. Procurement of essential drugs and the prescribing or administration of non-essential drugs by health staff not authorized to use them will need to be regulated and monitored accordingly, also to reduce the perverse incentives to prescribe drugs amongst providers.

For the earthquake-affected localities, the government could introduce an essential medicine list, harmonize lists of reimbursable medicine across the local social health security schemes, and rationalize the pricing of medicines, to facilitate adequate production, distribution and common

use of essential medicines (see Box 2 as an example with respect to HIV/AIDS medicines). These recommendations are in line with the current focus on essential pharmaceuticals being considered as part of China's health sector reform process.

Government can also raise awareness of rational use of medicines amongst health care providers, pharmacists and the general public in earthquake-affected localities. Doctors and pharmacists would benefit from in-service training programs on rational use of Western and traditional Chinese medicines. A national education campaign would help the public understand rational use of antibiotics, injectable substances and intravenous drips and help reduce unnecessary demand for and use of these products.

Box 2 Medicines for HIV/AIDS-affected populations in the aftermath of the earthquake

Short-term policy response (end 2008)

1. A supply chain management assessment (procurement, delivery, storage, distribution and monitoring) should be done in conjunction with any health systems assessment.
2. Provincial centers for disease control and health bureaus must determine where service delivery breaks have occurred and ensure access to antiretrovirals for all people living with HIV/AIDS.
3. The rights of people living with HIV/AIDS must be respected in accordance with the 1 March Regulation on HIV/AIDS Discrimination. People living with HIV/AIDS should *not* be sent to central hospitals and detained. Alternatives should be promoted, such as allowing for simplified migration to areas with HIV/AIDS services, including areas where relatives or supportive community members welcome them. Policies for this are in place in Sichuan, but they must be implemented.

Long-term policy response (2009-2010)

1. A re-evaluation of the supply chain systems should be completed, and priority should be given to ensuring timely procurement and delivery to people with AIDS.
2. Financing for the establishment of a supply chain system to rural areas should be done. The delivery of any medical drug can benefit from improved supply chain management systems.
3. Development of an "Emergency Preparedness Drug Supply Chain Systems Strategy".

3.3. Information management

To address the needs of the earthquake-affected population, it would be appropriate for the central government to support the creation of a comprehensive information management system to gather relevant information for ensuring appropriate public service utilization and human development from the perspective of each child. This system might gather information on, for example:

- Pregnancy and birth registration
- Attendance at antenatal clinic, hospital delivery rates and post-natal follow up
- Vital health statistic registration (births, birth-weight, age and cause of deaths)
- Vaccination
- Nutrition status, including through occasional but statistically sound surveys of micronutrient deficiency and coverage of supplementation programs

- School enrollment, school transfers, and continuation of schooling
 - School dropout
 - Student performance records
-
- Child protection needs
 - Child protection services received and status of children in need of protection
 - Tracking of children, particularly in case of adoption and alternative care
-
- Official residence
 - Temporary residence and changes in residence
 - Marriage certification

One particularly important and related issue in Sichuan is the registration of migration and of left-behind children. A computerized registration system that would connect the earthquake-affected localities as the source of migration and the temporary residence locations of migrants would be helpful. This system might also utilize bar-coding or other forms of information technology to track children and facilitate their access to essential public services. It could also be useful in the identification of missing children in future emergencies. Calls for such a system (for instance, to systematically record the vaccination status of migrating infants and young children) have already been made. The system could be rolled out nation-wide and facilitate labor mobility and human development of children moving with parents or left behind.

In health, an improved information system will address the poor quality of the current MCH administrative reporting system (including, for example, the non-recording of infant and young child deaths that occur outside a health facility or at village level; the wide range of definitions application to some events, such as road traffic injury; the calculation of service coverage based on a selected sample or an estimated denominator, rather than the whole population). Such improvements must involve provision of equipment (computers and possibly also a reporting platform using mobile telephony, as successfully utilized for outbreak surveillance during the emergency), training and ongoing technical support.

In anticipation of concerns about the potential abuse of information, safeguards would be required to ensure privacy of access to records on patient movements and also non-linking of, say, health or banking data with personal identification records. Guarding the security and appropriate use of data will be an important task that needs to be appropriately entrusted within the government administration system.

Given the nature of the information collected and of the objective of the information system to promote human development and universal access to essential public services, government agencies strategically related to public services across sectors, such as the National Development and Reform Commission (or, possibly, the National Working Committee of Children and Women) and its affiliated sub-national departments and bureaus, would be most appropriate for managing and ensuring proper utilization of this information system. Providers of essential

services, such as health workers, teachers and social workers need to share responsibilities for proper updating and following on the information.

The earthquake-affected areas could provide a model for China in the introduction of such an information management system for essential public services and human development. The implementation of the information system can build on the successful roll-out of the infectious nationwide computerized disease surveillance system in China in recent years.

4. Planning for an Appropriate Public Service Workforce

Ensuring that appropriately skilled professionals are available to deliver quality public services according to the needs of local population in earthquake-affected localities will be a great challenge, particularly in the more remote rural areas. Human resource gaps and needs will need to be assessed across sectors. Accordingly, a human resource plan, including a large-scale training program and innovative incentive mechanisms, will need to be developed to ensure appropriate numbers and qualifications of workforce for public service delivery. In this respect, the reconstruction may establish a good practice that can be scaled up nation-wide.

4.1. Strategic assessment and planning for human resources

A strategic assessment of human resource gaps and needs will be needed, along with human resource planning in all sectors of public service delivery across the affected provinces. In each public service sector, the strategic assessment and planning should include clarification on the roles, functions, responsibilities, required qualifications, distribution, and answerability of staff at each level. Support from the national level and other provinces will be required to meet the needs for essential public service delivery in the affected provinces in the short-to-medium term.

In health, focusing on village health workers and health professionals at township health centers, community health centers, centers for disease control, county hospitals and designated secondary hospitals, the strategic human resource plans need to address the skill composition and geographical distribution of the staff according to their expected functions and scope of work, along with basic and in-service training requirements, associated remuneration and reward systems, and the lines of supervision. Given the current weaknesses in human resources in the health system in China, it would be appropriate to consider options for strengthening the role and number of qualified nurses, including public health nurses and nurse-midwives, and other qualified health workers below the doctor-level, particularly in primary health facilities in both urban and rural areas.

In addition, proper human resource planning need to be conducted for the New Rural Cooperative Medical System, medical financial assistance and other health security schemes, and for specialized government agencies so that these are able to act as active purchasers of health services on behalf of citizens and effectively interact with service providers in the context of the provider payment mechanism discussed in Recommendation 2. In these dimensions, again, the earthquake affected areas could become an innovative model for human resource strategy in the health sector to scale up nationally.

Similarly, the strategic assessment and planning for teachers and administrative personnel in education need to reflect the future education needs of children in terms of the education content/curriculum and teaching approaches. The role of teachers and administrators could be outlined in line with the framework of child friendly schools illustrated above.

For child protection and social protection, the strategic assessment and planning need to carefully project all the functions that social workers should play at the community, township and county level. Given the shortage of qualified social workers in China generally and in earthquake-affected localities specifically, innovative approaches are needed. At the village and community level, for instance, the designated women cadres belonging to the All China Women's Federation could be brought more comprehensively into the social and child protection systems and deliver the basic functions of social workers, for instance to help identify children in need of protection, help citizens to understand and obtain their social protection entitlements and benefits, and conduct basic monitoring of children's well-being. At the township level, a plan needs to be developed for qualified social workers to conduct more comprehensive monitoring of children's well-being, comprehensive prevention and case management (including referral and gate-keeping) and gradually realize the holistic child protection approach described in Recommendation 1. The plan should aim at posting senior social workers at the county level to ensure proper monitoring and follow on the child protection needs (in the context of the information management system described in Recommendation 3), manage more difficult cases within the county, and bring the different actors across sectors to make the child and social protection systems effective. In this respect, the reconstruction strategy may facilitate the review and implementation of the categorization, qualification requirements, training and examination for social workers.

Furthermore, in the short term, the plan should aim to reintegrate and address the counseling needs of personnel returning after completing rescue and relief operations, and to meet the demand for psychological services by children and the wider population affected by the earthquake.

Moreover, as part of the reconstruction strategy, an emergency preparedness personnel strategy could be developed for each essential public service sector to elaborate upon the definition and division responsibilities in emergency, staff movement, replacement, hiring and accountabilities; mechanisms for community members to receive training and be able to conduct some tasks for absent personnel; and other relevant issues.

4.2. Training

Based on the skills required in the earthquake-affected localities, the government needs to roll out a large-scale program of pre-service and in-service training, technical support and career development to professionals in all essential public service sectors. In the earthquake-affected localities, the plan would promote local pre-service and in-service training for existing staff, and would also target young people interested to become qualified nurses, primary health workers, teachers, social workers, operators of water plants, and so on. As part of the training and technical support strategy, distance learning programs could be developed, utilizing the rapid development of information technology and telecommunication networks.

The training programs in the earthquake-affected localities could be financially and technically sponsored by local governments and service providers of China's richer provinces and involve skill transfer to the local trainers. The programs could be later usefully scaled up across China's less developed rural areas.

Training on emergency preparedness should be incorporated into any in-service or basic training for community leaders as well as personnel involved in public service delivery. Building on China's Emergency Response Law¹⁴, an effective mechanism needs to be established to implement the required large-scale training program for emergency response management at the local level. Special attention is needed to ensure that the training content reflects international good practice.

4.3. Attracting and retaining qualified staff

The government needs to establish a mechanism for attracting and retaining qualified staff in the earthquake-affected localities. Specifically, the government needs to establish effective incentive structures including appropriate remuneration, financial subsidies and professional development opportunities. A satisfactory benefit package and performance based incentives should be introduced with a view to raising the morale and motivation of qualified personnel working in remote and less developed rural areas. This requires an effective policy framework and appropriate operational mechanisms to motivate new graduates to work at peripheral sites and to encourage those qualified professionals already at such sites to continue working there.

Alternatively or in addition, new graduates could be required to work in remote rural areas before undertaking further training opportunities or professional promotion. Additionally, in-service training could support the recruitment of the most critical front-line public service personnel, such as qualified nurses for primary healthcare facilities, teachers for primary schools and social workers.

Hiring and secondment of qualified personnel from other provinces to work in the affected areas may also need to be considered for the short and medium term.

The remuneration of qualified professionals working in public service delivery across villages, townships, and counties in the earthquake affected localities needs to be at least comparable to colleagues of similar qualifications working elsewhere. In locations characterized by extreme hardship or isolation, a bonus or allowance for this should be incorporated into the employment package, to attract candidates to accept such posts.

¹⁴ Emergency Response Law of the People's Republic of China (Adopted at the 29th session of the Standing Committee of the Tenth National People's Congress of the People's Republic of China on August 30, 2007), effective on November 1, 2007.

5. Establishing Good Governance for Public Services

Governance is a key challenge in developing and implementing a comprehensive reconstruction strategy. In fact, even a state-of-the-art reconstruction strategy is likely to fail without proper governance structures and mechanisms in place for implementation. Across sectors, establishing good governance is essential for making public services of good quality reach the most vulnerable population groups affected by the earthquake.

5.1. Policy coordination

Strong government leadership is needed to ensure coherence in the development and implementation of a reconstruction strategy across the central government agencies and the many sub-national government agencies with responsibilities for essential public services within each sector. Importantly, an effective policy coordinating mechanism needs to be established and promote the development of appropriate policies, regulations, structures and incentive mechanisms within each and across sectors to ensure the delivery of essential public services in the earthquake-affected localities.

For public services in the social sectors, a commission or leading group could be set up at the national and provincial levels to promote policy coordination, to guide the development of a framework to evaluate policy implementation, public service delivery performance and policy impact on people's well-being. In this respect, the commission or leading group would play an important role in ensuring independent monitoring and evaluation. The commission could include a wide range of civil society representatives including mass-organizations such as All China Women's Federation, professional and citizens associations, and academic and research institutions as well as government agencies with associated responsibilities within the sectors (such as the sector ministries) or with related coordinating responsibilities (such as the National Working Committee of Children and Women).

The government can undertake a comprehensive campaign to clarify objectives, functions, and responsibilities of the various government agencies at the different government levels with respect to public services in each sector, and to align incentives and resources with policy objectives and functions across government agencies, service providers, and other relevant actors. This effort would need to address cross-cutting functions and responsibilities, such as safety, emergency preparedness and emergency management.

Important steps toward better policy coordination have been recently announced at the central level of government. In the medium term, an unambiguous division of functions across ministries and inter-ministerial coordination could pave the way for a clearer division of functions and resources and for better coordination across different government levels and across agencies at the lower levels of governments. These reforms could facilitate the reconstruction and development process in the earthquake-affected localities in the medium term. The challenge of policy coordination in the midst of a massive reconstruction could, in turn, serve as a catalyst to these important reforms.

5.2. Accountability

Although the responsibilities with respect to public services are heavily decentralized in China, the central and provincial governments have a vital role to play in order to ensure proper implementation of the reconstruction strategy and national policies in general.

The provincial governments must be accountable for public service delivery in the entire province, including the earthquake-affected localities, while the central government provides an ultimate guarantee (and an equalizing fiscal support) of equitable access to essential public services of acceptable quality. Generally, it is the role of provinces to ensure the implementation of national laws, standards and policies, appropriate and equitable resource allocation, and good performance (including but not limited to the adherence to national standards, equity in access, cost control, safety and quality) in public service delivery within the entire province. In this respect, the provinces, while accountable to the central government, also need to monitor and hold sub-provincial governments accountable. Similar lines of accountability should apply to the implementation of the reconstruction strategy in the earthquake-affected localities.

Consequently, being more effectively guided, supervised and held accountable by the provincial governments, the sub-provincial governments would be encouraged to fully participate in the implementation of reconstruction strategy. Namely, they should be encouraged to ensure appropriate resource allocation to essential public service delivery, monitor and enforce standards and good practice; monitor the performance of service providers, holding providers accountable; promote equity, cost control and quality in public service delivery; and address citizens' feedback.

Since responsibilities for financing and providing public services are heavily decentralized down to district and county-level governments, and delegated to many agencies across the five official government levels in China, a strong alignment of resources, incentives and responsibilities with the national priorities at each level of government is a necessary condition for effective functioning of public services in earthquake-affected localities. Namely, alignment of resources and incentives with national priorities across government levels and agencies and across providers is necessary for making the government reconstruction strategy work for the worst-affected people at the local level.

5.3. The regulatory, monitoring and performance management role of government

In the process of reconstruction, it would be beneficial to enhance the existing mechanisms to regulate, monitor, guide and evaluate public service delivery. The mechanisms need to consider equity, fairness, effectiveness, cost, efficiency and quality in the provision of public services and strive to promote incentives toward better service delivery performance. In monitoring public service delivery, it will be crucial to implement effective inspections at the local level, and

publicly disclose the results of inspections, which in turn would help strengthen the providers' accountability.¹⁵

A comprehensive regulatory, monitoring, enforcement and performance management framework needs to address essential government functions in social sectors (such as public health safety), standards in essential service delivery, staff qualification and registration, and pricing, production, distribution and rational use of essential services.¹⁶ For hospitals and schools, which may be able to draw on large amounts of charitable contributions, the government can establish a system of guidance and monitoring to optimize costly equipment purchases and the use of funds.

Similarly, strong regulatory, monitoring and performance management functions of the government are essential for effective social and child protection. For social protection schemes, the framework needs to ensure an appropriate design (as discussed in Recommendations 1 and 2) and population coverage including targeting where appropriate. For child protection, monitoring children in need of protection and children in alternative care is critical. In fact, only a strong regulatory and performance evaluation function of the government can ensure that innovative approaches, such as the proposed move from institutional care to family solutions and community-based care, are effectively implemented, overcoming vested interests.

To consistently fulfill its regulatory, monitoring and performance management role in the earthquake-affected localities (and across China), the government will need to continue enhancing its enforcement capacity (particularly at the local level). Furthermore, with respect to public service delivery in earthquake-affected localities, the central government could further strengthen its role in specifying and ensuring enforcement of national standards, the obligations of the various government agencies at the different government levels, and the rights of citizens.

A comprehensive performance evaluation framework and performance management mechanism could become a powerful basis for strengthening the accountability relationships across government levels, agencies and service providers, for addressing citizens' concerns, and thus for enhancing public service delivery in earthquake-affected localities. A well developed performance evaluation mechanism would facilitate strengthening accountability for outputs and outcomes in public service delivery, which in turn would also allow for greater management autonomy at the level of local governments and service providers. (Such managerial autonomy generally promotes efficiency and is especially beneficial at times of uncertainties and rapid changes, such as during reconstruction.)

For the success of the reconstruction process, appropriate performance indicators and targets, and effective monitoring and evaluation mechanisms need to be developed, building on (and contributing to) the existing reform initiatives in China. Performance targets and indicators related to essential public service delivery would serve as the basis for evaluation and

¹⁵ The disclosure of inspection results is critical especially with respect to quality of public services. Without access to inspection results, citizens are unable to discern critical aspects, including safety of water, rational use of medicines, and appropriateness of teaching methods or of case management in child protection and healthcare.

¹⁶ With respect to MCH, an example is the marketing of infant formula and breast-milk substitutes, on which an internationally accepted Code (of conduct) exists to which China is a signatory. This Code is frequently violated in government facilities that were formerly designated "baby-friendly", and should be enforced rigorously in the context of the risks posed by poor sanitation and hygiene after the earthquake.

management of performance of local governments and service providers in earthquake-affected localities. Targets and indicators at all government levels would need to reflect equity and cost-effectiveness in the distribution of public resources, coverage of essential public services, risks, and outcomes (see Annex 1 as an example for health-related indicators).

In order to minimize conflicts of interest, it will be important to make the performance evaluation system relatively independent from the influence of agencies responsible for the implementation of reconstruction strategy – possibly involving an independent commission and utilizing citizens’ feedback. Such independent monitoring and evaluation mechanisms could be later considered country-wide.

As an innovative measure, a citizen scorecard survey could become a useful tool to gather citizens’ feedback regarding their experience in the reconstruction process, including their utilization of essential public services, to help assess the performance of both local governments and service providers in earthquake-affected localities. For instance, citizen scorecard surveys would effectively assess the local government and service providers on items that are difficult to monitor through administrative channels, including equity and fairness in access to essential services.

5.4. Public awareness and citizens’ participation

A public awareness campaign could be implemented across earthquake-affected localities to explain the policies and processes related to public services, share crucial knowledge to support local social development, and enhance future emergency preparedness. Citizens need to fully understand their rights, responsibilities and utilization guidelines with respect to public services, and they need relevant knowledge to be able to adequately promote their own and their children’s well-being.

- *Awareness regarding public service*

Government agencies must be required to actively disseminate information about government policies and promote information sharing and transparency about public resource allocation, national and local service standards, administrative procedures, fees, and the quality of public services. Provincial governments may need to take the lead on developing effective channels to raise citizens’ awareness and ensuring the reliability of information provided with respect to public services. Specific requirements for transparency, information sharing and public awareness campaigns also need to apply directly to all service providers, including schools, health facilities, public utilities and others. In the context of reconstruction, it would be appropriate to provide transparent information about resource use by local governments and service providers, including but not limited to health institutions, schools, social protection schemes, foster-care facilities, and child welfare institutions.

With respect to healthcare and social protection in health, detailed information needs to be provided on the service benefit package, co-payment levels, the functions and responsibilities of providers of care and of health security schemes (such as the rural cooperative medical scheme), channels for formal complaints, and so on. The initial

target for this information must be the service providers themselves, as at community level, the first line of authority on health matters is most often the trusted local health worker.

Similarly, for education, citizens in the earthquake-affected localities need detailed information regarding schools, enrollment policies and processes, guidelines regarding any fees related to education, available support programs, and others. Any new policies or measures, such as the possibility of non-formal education and bridging courses, also need to be well communicated at the village level.

In social protection, citizens need to receive clear information regarding all benefits and schemes, the related policy guidelines, eligibility criteria, application processes, and means of seeking assistance and reaching designated social workers, officials and agencies.

With respect to child protection, citizens need to be well-informed about mechanisms to report a possible neglect, abuse, violence or trafficking of children. Particularly in the context of emergency, citizens need to know about the reporting channels and arrangements for unaccompanied and separated children.

Where this information refers to changes in the current system of service provision or payment, it will obviously be important to ensure that those services are fully functional in advance of informing the community. The phasing of the different aspects of making these changes will require considerable planning.

- Awareness on well-being and emergency preparedness

Awareness in important areas associated with human well-being, including public health safety and health promotion, are included in the essential health package described in Recommendation 1. In this respect, active public awareness campaigns may be needed in the earthquake-affected localities in order to make reconstruction meet the current and future needs of the society rather than re-create public health problems of the past. It will be vital for social development in the earthquake-affected localities (and possibly in other remote and less developed rural areas in China) to promote public awareness about nutrition, rational use of medicines and healthy lifestyle, and about health risks, be they related to unsafe water, improper sanitation and hygiene, or pollution, and about the means of protection and possibilities to reduce the impact of health risks on human beings.

Special public awareness campaigns may also be needed with respect to the rights, well-being, and early development needs of children.

Building on China's Emergency Response Law, implementing large-scale public awareness campaigns and drilling for emergency preparedness at the local level (in emergency-affected localities and nation-wide) is essential to limit the social impact of future possible disasters.

Finally, in the context of reconstruction, local governments should strive to learn about and address the needs and concerns of women and young people as well as other citizens, and

involve them in decision making. Given the special needs facing the affected population groups, government could usefully involve citizens in outlining the exact scope and mode of delivery of essential public services.

Generally, citizens can effectively assist in making service providers accountable and in facilitating the implementation of the reconstruction strategy as well as national policies and standards related to public service delivery. To be able to do so, however, citizens need information and channels for involvement in the monitoring, performance evaluation, and policy processes.

Government also needs to be active in facilitating the collection of citizens' feedback and in ensuring that citizens' feedback is addressed. The government could consider using the citizens' scorecard, targeted local household surveys, public service complaint hot line and other innovative information channels. Since citizens' feedback may reveal weaknesses in the performance of service providers or local government agencies, it is useful to anchor the collection of citizens' feedback in the independent performance evaluation system discussed above.

Conclusions

China's commitment and capacity give confidence that the Government reconstruction strategy will succeed in developing modern public service delivery systems that will fully contribute to the future well-being of citizens who have suffered in the Wenchuan earthquake. There is a great hope and opportunity that these systems will entail innovative approaches and valuable lessons for China's future economic and social development.

Internationally, in facing the challenge of post-disaster reconstruction, countries can effectively build on the international values and lessons from post-disaster reconstruction. The five-pillar framework offered in this paper is meant to serve as a useful reference in addressing the social impact of disasters, with an emphasis on children, young people and women.

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Annex

Annex 1 – Performance Indicators for Government at the Central and Subnational Levels: Health

INPUT / PROCESS	ACCESS / COVERAGE	RISK FACTORS	OUTCOME
<p><i>What are the sources of health funding?</i></p> <p>Government expenditure on health as a share of total government spending</p> <p>Out-of-pocket health expenditure as a share of total health expenditure</p>	<p><i>What is the coverage of essential health services?</i></p> <p>Immunization coverage with three doses of diphtheria-tetanus-pertussis</p> <p>Proportion of births attended by skilled health personnel; Percentage of New-method/ Hospitalized Delivery</p> <p>Proportion of those referred to hospitalization, who declined hospitalization for financial reason</p> <p>Proportion of newborns who received a check-up by a qualified practitioner within 48 hours and within 7 days of delivery</p> <p><i>What is the performance of social protection in health?</i></p> <p>Population coverage of medical insurance schemes</p> <p>Average co-payment rate under the New Rural Cooperative System</p> <p>Proportion of out-of-pocket costs for normal and complicated hospital delivery at township and county levels</p>	<p><i>What is the performance on public health safety?</i></p> <p>Proportion of rural population with access to an improved water source</p> <p>Proportion of rural population with hygienic toilets</p> <p>Proportion of township/county health facilities with running water, hand-washing facilities and sanitary latrines</p>	<p><i>What are the basic health outcomes?</i></p> <p>Life expectancy at birth</p> <p>Under-five mortality rate</p> <p>Maternal mortality ratio</p> <p>Anaemia rate (or child underweight/stunting)</p> <p>The rate of formula-use by new mothers in hospital upon delivery</p> <p><i>What is the burden of major diseases and risks?</i></p> <p>Mortality rate of occupational accident per unit GDP</p> <p>Deaths in road accidents per 10000 vehicles</p> <p>Prevalence of food-born diseases and food-born mortalities</p> <p>HIV prevalence</p> <p>Proportion of mortality due to communicable diseases</p> <p><i>What is the outcome of health security?</i></p> <p>Proportion of households suffering financial catastrophe due to health payments</p> <p>Proportion of households impoverished due to health payments</p>
<p>EQUITY dimensions: By Urban / Rural (highlighting Rural IV), Province, Gender, Age</p>			

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