



UNBREAKABLE

»» The effects of policy options on well-being
and asset losses in 117 countries



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and asset losses in 117 countries



WORLD BANK GROUP

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This book contains results and data from *Unbreakable: Building the Resilience of the Poor in the Face of Natural Disasters* (doi: 10.1596/978-1-4648-1003-9). A PDF of the final, full-length book is available at <https://openknowledge.worldbank.org/> and print copies can be ordered at <http://Amazon.com>.

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INTRODUCTION



See the effects of policy on well-being and asset losses in 117 countries.

The report *Unbreakable: Building the Resilience of the Poor in the Face of Natural Disasters* investigates many policies that can reduce the well-being losses due to natural disasters, looking at policies to avoid disasters and reduce asset losses—such as land-use planning and protection infrastructure—and at policies that make the population better able to cope with and recover from disasters that cannot be avoided. The report provides estimates of the potential benefits from these policies, on a global scale and in a few selected countries. Here, we provide estimates of the benefits of these policies in the 117 countries that have been analyzed. We start by reproducing the chapter 7 of the main report, which illustrates the approach using a few countries with very different characteristics, and then we provide *disaster management profiles* for every countries.

The main finding is that the potential of disaster risk management policies differs across countries, depending on their socioeconomic characteristics, their exposure to different hazards, and the actions they have already implemented to help people manage risks. In all countries, however, there are promising opportunities to reduce asset losses through risk mitigation and to increase resilience by enhancing the ability of people to cope with disaster losses.

Another important finding is that in many countries, especially low-income ones, very promising options to build people's resilience are also good poverty reduction and development policies—examples are financial inclusion or social protection. In these countries, it is very easy to align development priorities with disaster risk management and build on the synergies between these two objectives. We therefore largely confirm

here the findings from the chapters 2 and 3 of the main report, namely that poverty reduction helps with risk mitigation and risk mitigation helps with poverty reduction.

Our estimates give insight into promising courses of action, but they do not indicate whether or what measures need to be implemented. As already pointed out, these estimates are based on global analyses and databases and would need to be refined using country-level data sources. But, most important, whereas we focus on potential benefits of actions, making actual decisions requires assessing the costs of various policies as well.

Such a cost assessment would, however, have to be performed at the country level, and we cannot provide a full cost-benefit analysis of the measures proposed here. Indeed, the cost of, say, reducing exposure to natural disasters by 5 percent depends on how this reduction is to be achieved. If it is carried out by building new dikes or pumping stations, the cost will include large up-front investment costs, as well as significant maintenance and operational costs over the lifetime of the protection system. If carried out through risk-sensitive land-use planning, there will be no large investment costs, but implementation and enforcement will require building strong institutions and a solid legal framework, and the indirect cost may be increased land scarcity. If carried out through ecosystem conservation, as suggested for Colombo in chapter 5, the costs will include investment costs (to restore and rehabilitate ecosystems if needed), opportunity costs from forgone development of land, and enforcement costs.

Obviously, our global analysis cannot reach this level of detail, but it can support a conversation on options to achieve various objectives. One way of engagement on this issue is to begin by assessing the benefits from a 5 percent reduction in exposure (\$1.5 billion a year in Bangladesh, for example) and then explore the options to achieve such a reduction, looking in turn at those options that are regulation-based, infrastructure-based, or ecosystem-based, as itemized and discussed in chapter 5. Similarly, the benefits from the postdisaster support package as estimated here could be compared with the cost of various instruments able to ensure that affected people receive timely and appropriate help in postdisaster situations. Following the descriptions provided in chapter 6, it is possible to consider options such as developing insurance, making an existing social safety net scalable, or creating an entirely new program. Costs can then be estimated and compared with potential benefits.

Designing a disaster risk management strategy is challenging because it requires considering a very broad set of actions—from developing hard infrastructure to undertaking institutional measures such as devising land-use plans and social safety nets—that are usually designed and implemented by different agencies within a country (World

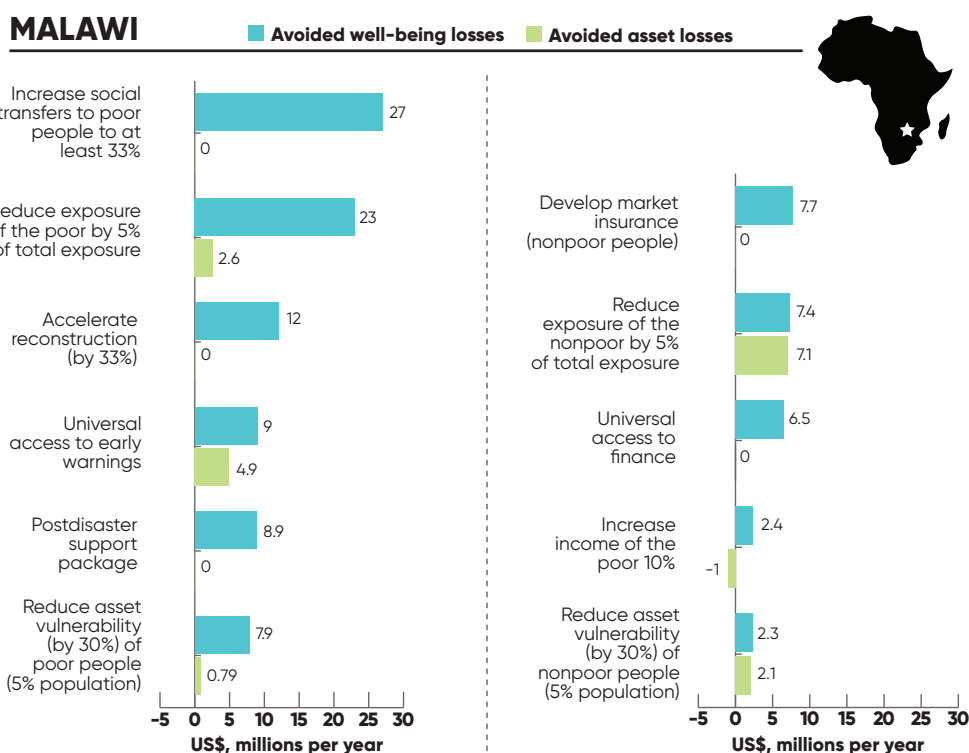
Bank 2013). This kind of endeavor creates difficult communication and coordination issues (Clarke and Dercon 2016). The assessment of multiple actions within a single framework, as proposed here, may provide a starting point for engaging multiple agencies and stakeholders in a constructive dialogue on what can and should be done.

Country-level disaster management profiles help identify promising policies

To identify promising policy options and help design consistent strategies, this report developed disaster management profiles for the 117 analyzed countries. The profile for Malawi shows the potential benefits of different actions on well-being and asset losses (figure 7.1). These profiles are available for all countries.

Figure 7.1: Many actions could reduce asset and well-being losses in Malawi

Effects of policy options on asset and well-being losses in Malawi



Source: World Bank estimates.

Note: U.S. dollars per year are based on a purchasing power parity exchange rate. This profile shows how different actions would reduce asset losses and the impact of disasters on well-being. It considers the same actions presented in table 6.2, as well as the effect of reducing poverty, but presents the benefits at the country level. Benefits are large when a country has a combination of two characteristics: (1) the measure has the potential to reduce losses, and (2) the country is lagging in the domain of the measure. For example, in countries in which early warning is already universally accessible, no more gain can be expected from this measure.

In Malawi, building up social protection systems so that poor people receive a larger share of their income from transfers would increase resilience and reduce the well-being effects of natural disasters, even if the income level of poor people remains unchanged. A well-being gain equivalent to a \$27 million increase in consumption would be generated if the share of diversified income were to reach 33 percent. And this is only a fraction of the benefits that stronger safety nets can produce.

Making the safety net system responsive to disasters (by combining a financial instrument with delivery mechanisms) to enhance the government's ability to provide postdisaster support should generate well-being gains amounting to almost \$8.9 million a year.

And reducing poverty – by increasing poor people's income by 10 percent – would lead to larger asset losses from disasters because richer people have more to lose. But, overall, the increase in resilience would more than compensate for such losses, and the well-being losses from disasters would be reduced by \$2.4 million a year. The well-being losses from a disaster would be reduced further if the increased income was translated into more robust buildings or more savings in financial form. And the reduction in disaster impacts is in addition to the (much larger) direct well-being gains of being less poor.

Accelerating reconstruction and providing universal access to early warning would generate \$12 and \$9 million a year, respectively. These benefits from early warning do not include the lives that can be saved, but they are already likely to be higher than what would need to be invested to create and maintain such a capacity in Malawi.

As for exposure to natural disasters, reducing the exposure of poor people so that total exposure is lessened by 5 percent would prevent asset losses of \$2.6 million a year and would generate well-being gains equivalent to \$23 million a year. By contrast, reducing the exposure of the nonpoor would generate much higher gains in terms of avoided asset losses (\$7.1 million a year), but much lower well-being benefits (only \$7.4 million a year).

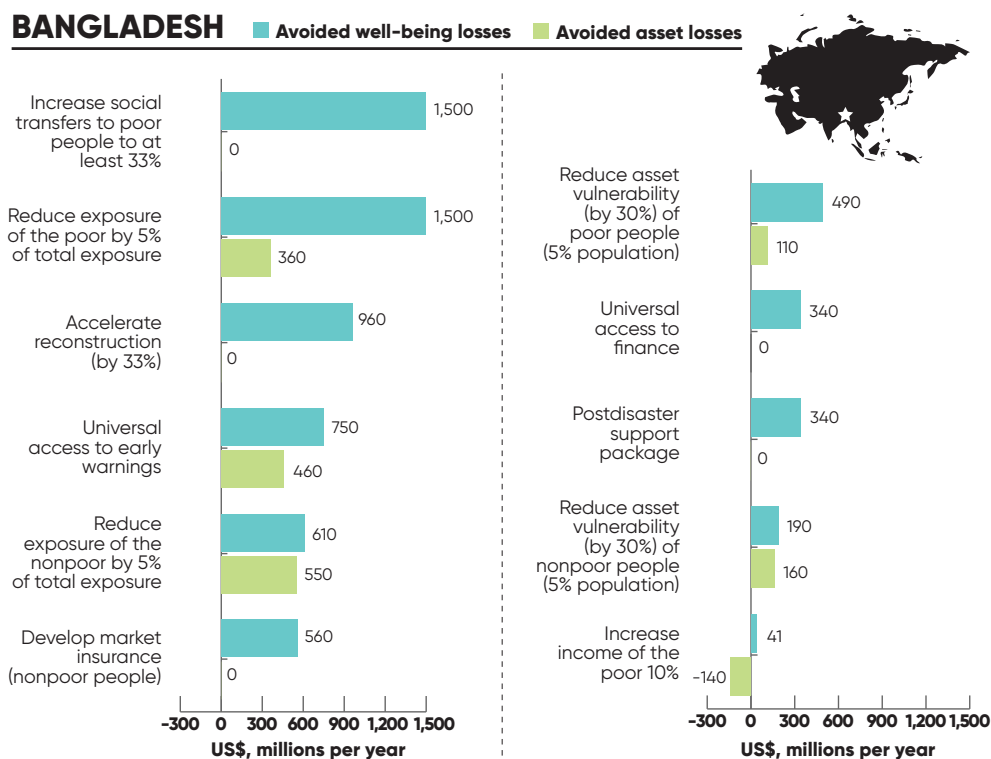
For floods only, reducing exposure by 5 percent, targeting poor people, would reduce asset losses by \$2.2 million a year, which would generate well-being gains equivalent to \$19 million a year. This corresponds to reducing exposure by about 80,000 people. The avoided well-being losses are thus equivalent to \$230 a year per protected person, suggesting that the government of Malawi would have to be ready to pay up to \$3,800 per person either protected by a dike or resettled in a safe area (with a 6 percent discount rate).

It now becomes possible to explore the various options available to Malawi to undertake such actions, including infrastructure, land-use plans, relocation programs, or ecosystem-based solutions. The investment and operational costs of these different solutions can be estimated and compared with the benefits per person protected estimated here.

Comparing countries can be helpful as well. In Bangladesh (figure 7.2), reducing the exposure of poor people so that total exposure is reduced by 5 percent would prevent asset losses of \$360 million a year, but would generate well-being gains equivalent to \$1.5 billion a year. For floods only, this corresponds to reducing exposure by about 1.5 million people—not an easy task—with a benefit to well-being amounting to \$1.1 billion, or about \$800 per person per year. The government could thus pay almost \$13,000 per capita for protection or resettlement. Such a high value—more than three times higher than in Malawi—would mean that options that may not be economically viable in Malawi could make sense in Bangladesh. This result should affect the list of potential solutions that are explored and assessed by the government of Bangladesh.

Figure 7.2: Although reducing exposure is a priority in Bangladesh, resilience building could also result in large reductions in well-being losses

Effects of policy options on asset and well-being losses in Bangladesh



Source: World Bank estimates.

Note: U.S. dollars per year are based on a purchasing power parity exchange rate.

Implementing a package in Bangladesh to enhance the ability to provide postdisaster support (combining contingent finance with scalable social protection) would lead to well-being gains of \$340 million a year. Adding insurance, even if only for the nonpoor, would add benefits amounting to \$560 million. And if this postdisaster support can facilitate and accelerate the reconstruction phase, it would generate an additional \$960 million a year in well-being gains.

For Angola, the results are different (see figure 7.3). The country has very low socioeconomic resilience—only 31 percent—because of large inequalities (the bottom 20 percent of wage earners account for only 5 percent of total income), a very weak social system (it is not very pro-poor), and liquidity constraints. In such a context, huge benefits can result from building socioeconomic resilience. Developing the toolbox to provide postdisaster support (combining liquidity instruments with scalable social protection) has significant potential, possibly delivering \$180 million a year in well-being gains. Interestingly, the various components of such a toolbox, taken independently, are largely inefficient.

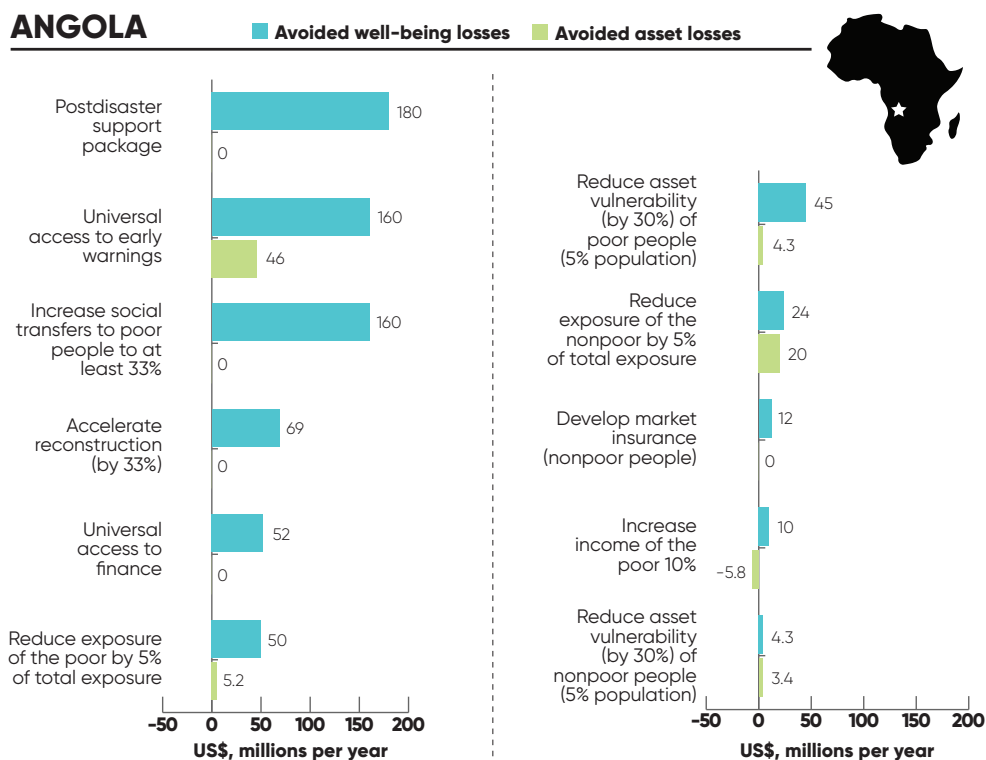
Making social protection more scalable does not deliver much benefit if a country remains liquidity-constrained after a shock, and improving access to liquidity in the aftermath of a disaster is not very useful in the absence of delivery mechanisms to transfer resources to affected people. This finding shows once more the complementarity between interventions that facilitate access to financial resources in the aftermath of disasters and interventions that improve preparedness (such as registries and automatic scaling-up mechanisms). Combined, these interventions produce much larger benefits than the sum of the two performed independently.

Increasing transfers, with more remittances and social protection (in particular, cash transfers for the poor), would also increase resilience and deliver gains in well-being, as would poverty reduction in general. This example shows that in low-resilience countries such as Angola, development and poverty reduction are already good resilience-building options. The alignment between development priorities and resilience building is strong.

As for early warning systems, they have large potential in a country in which they are largely nonexistent. They would deliver about \$160 million a year in well-being benefits for a net present value of \$2.7 billion. This amount is probably orders of magnitude larger than the cost of creating a functioning hydrometeorological organization with the capacity to deliver warnings.

Figure 7.3: In a low-resilience country such as Angola, resilience building should be a priority

Effects of policy options on asset and well-being losses in Angola



Source: World Bank estimates.

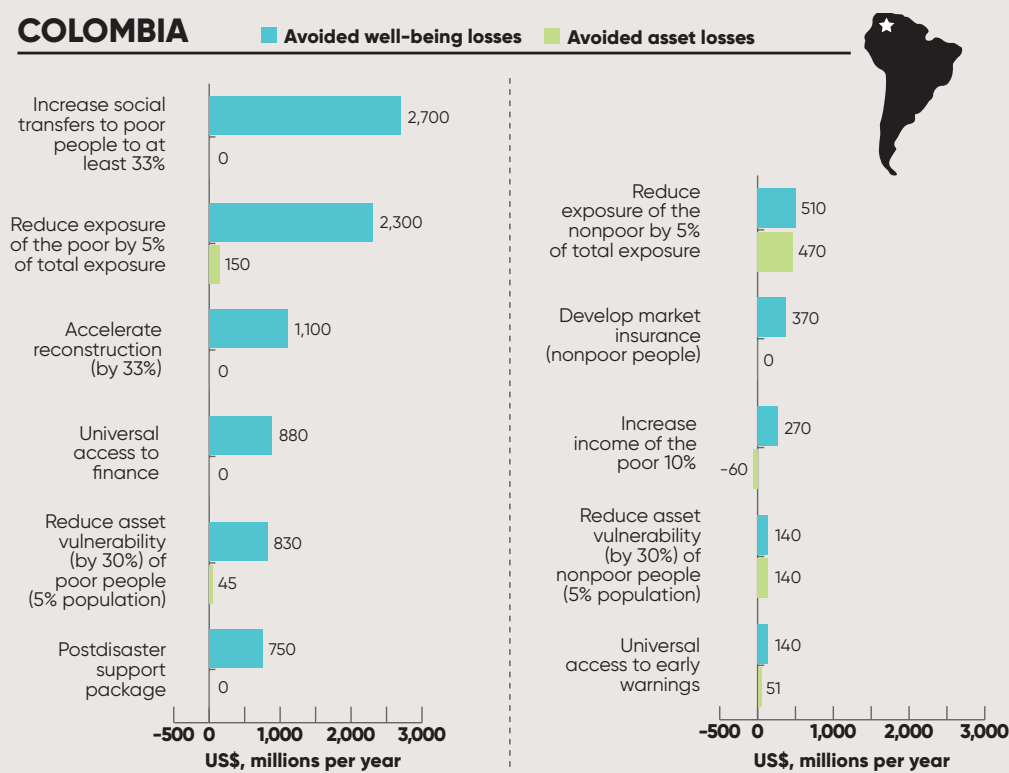
Note: U.S. dollars per year are based on a purchasing power parity exchange rate.

In Colombia (figure 7.4), resilience is relatively low (45 percent) because of the large overexposure of poor people and their large asset vulnerability, as well as the small size of transfers, rendering people's income weakly diversified. As a result, the benefits in terms of well-being of reducing asset losses for the poor are quite large, and action targeting the nonpoor appears much less desirable. Also, increasing the strength of social protection for the poor—even without scalability—would yield large benefits in terms of gains in resilience and well-being, valued at about \$2.7 billion a year.

In Germany (figure 7.5), resilience is very high (76 percent), and most of the socioeconomic options to increase resilience and enable people to better able to cope with shocks have already been implemented—not many low-hanging fruits are left. Thus the benefits of better access to finance, social transfers, postdisaster support, or contingent finance instruments are small. Also, because of the large resilience level, there is less difference between reducing risk for the poor or for the nonpoor than in most other countries.

Figure 7.4: Traditional and scalable social protection would increase resilience in Colombia and improve well-being

Effects of policy options on asset and well-being losses in Colombia



Source: World Bank estimates.
 Note: U.S. dollars per year are based on a purchasing power parity exchange rate.

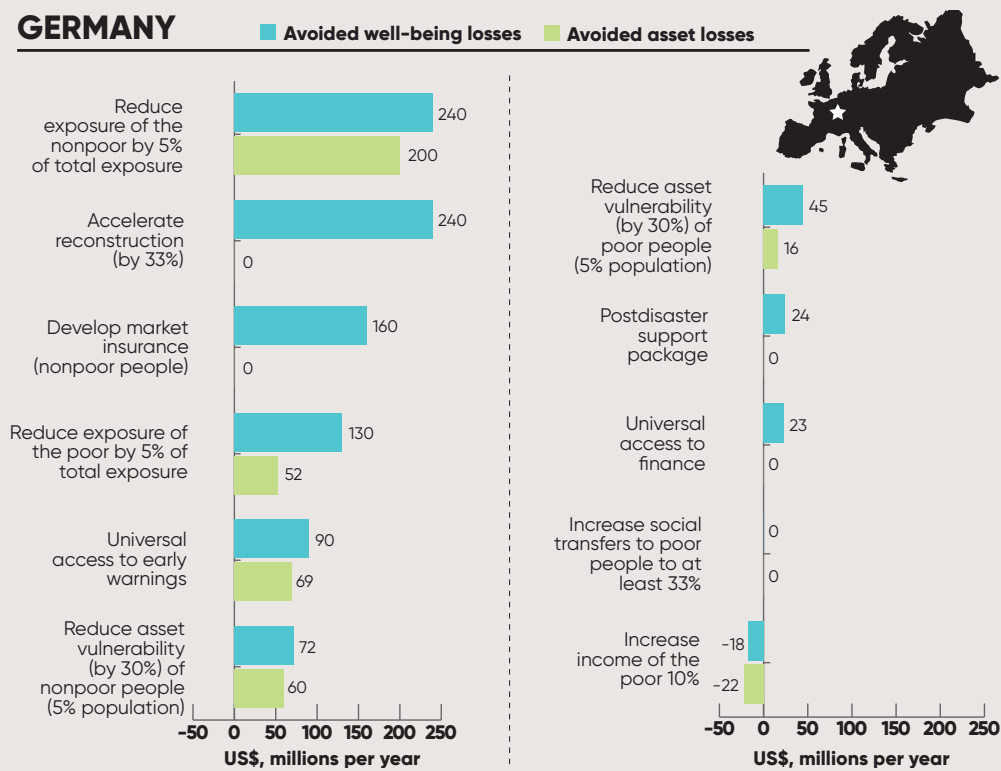
The best options in Germany seem to be to further reduce the exposure of the population (poor and nonpoor alike) to natural disasters and the vulnerability of assets. Another interesting action would be to ensure more rapid recovery and reconstruction after disasters. Doing so could generate up to \$240 million a year in well-being.

In Germany, increasing the income of the bottom 20 percent leads to an increase in asset and well-being losses from disasters. However, such an increase is not necessarily a bad thing for well-being: the nondisaster-related benefits from higher income and wealth for the poorest would largely dominate the increase in well-being impacts from disasters (here \$18 million a year for the whole country).

The results of applying our model are thus country-specific, which supports the choice of using a model instead of a weighted average of subindicators in which the weights are global and are not adjusted to local circumstances like the other vulnerability or resilience indicators (see box 4.3). Indeed, the model allows identification of specific situations. For

Figure 7.5: In Germany and most other rich countries, resilience is already in place

Effects of policy options on asset and well-being losses in Germany



Source: World Bank estimates.

Note: U.S. dollars per year are based on a purchasing power parity exchange rate.

example, in countries in which poor people have assets that are much more vulnerable than those of the rest of the population (such as Costa Rica) or where the poor are particularly exposed (such as Zambia for floods), it is particularly important to protect the poor with social protection instruments. In Zambia, the package to improve postdisaster support (with financial instruments and scalable social protection) would deliver \$21 million a year in well-being benefits, with a benefit-cost ratio of almost five.

As in the Mumbai case study, we ensure the robustness of these findings to uncertain parameters such as exposure and vulnerability to floods, the link between asset losses and income losses, income diversification, and the distribution of damages across affected households. These uncertainties matter for assessment of the level of risk, but not so much for assessment of policies. We find that the impacts of policies and their ranking are robust to these uncertainties. However, normative choices matter: changes in the elasticity of the marginal utility of consumption affect the implicit weight given to the poor and nonpoor and thus the relative merits of poverty and poverty bias reduction.

Summing up

This analysis should be understood as a first-round estimate using globally open data. It is a starting point for policy design and should be supplemented by local studies. At the local or national level, for example, the flood risks from the global model could be replaced with results from local analyses at higher resolution, including those of flash floods, small basins, and smaller but more frequent events. Local data on flood protection and better exposure data could be mobilized, and socioeconomic characteristics could be refined, accounting, for example, for the institutional capacity to scale up social protection beyond what a global database can reasonably aim at providing.

And yet the disaster management profiles can contribute to a discussion on a broad set of options to reduce natural risks and increase resilience and ensure that all options are discussed, from preventive actions such as flood zoning to ex post options such as insurance, contingent finance, and social protection. The profiles provide an integrated framework to discuss and compare these options, and they could even help break the silos in governments and local authorities, where ministries or departments in charge of social protection, building norms, and urban planning may not work well together or not even consider natural risks in their decisions.

It is hoped that this type of analysis will foster cross-sector dialogues at the country level, bringing together disaster risk agencies and experts with the rest of the government and agencies to ensure that development, poverty reduction, and disaster risk management are integrated into a resilient and sustainable development strategy that benefit the poorest.

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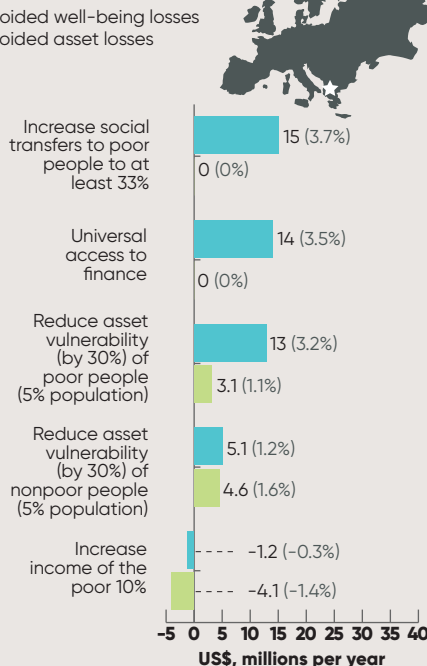
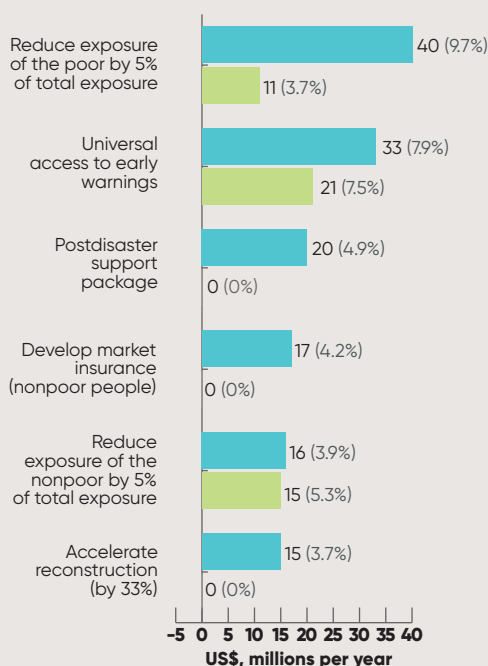
ALBANIA

Risk to assets: \$290 million (0.99% of GDP)

Socioeconomic resilience: 69%

Risk to well-being: \$410 million (1.4% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



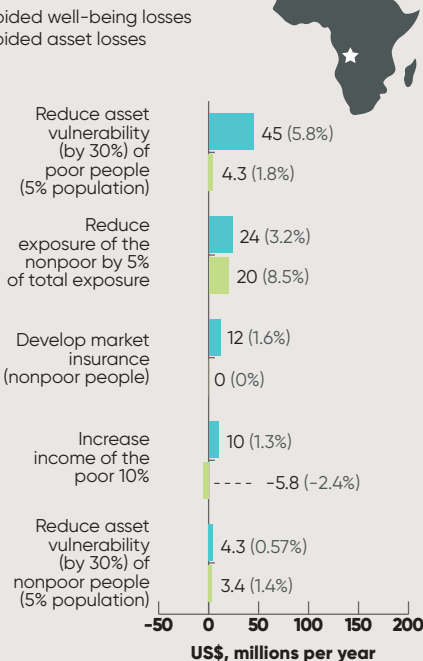
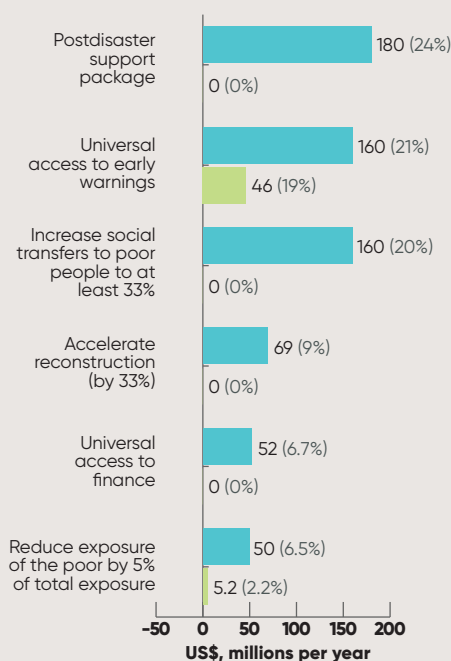
ANGOLA

Risk to assets: \$240 million (0.15% of GDP)

Socioeconomic resilience: 31%

Risk to well-being: \$770 million (0.48% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



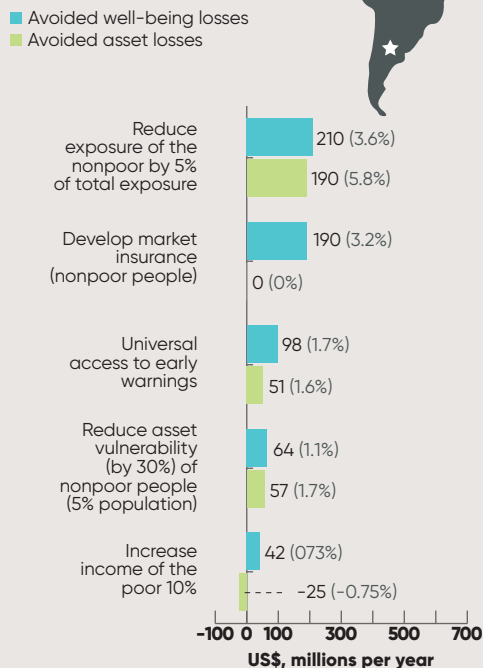
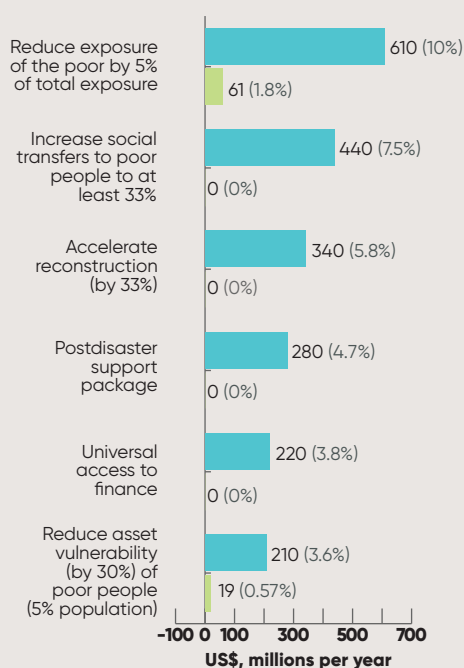
ARGENTINA

Risk to assets: \$3,300 million (0.44% of GDP)

Socioeconomic resilience: 57%

Risk to well-being: \$5,800 million (0.78% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



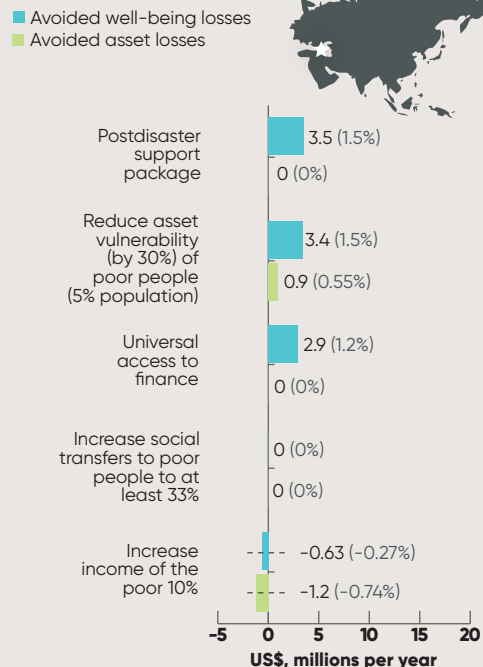
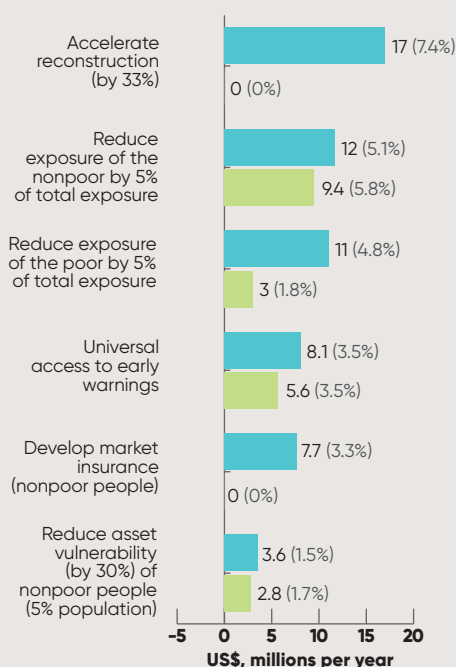
ARMENIA

Risk to assets: \$160 million (0.73% of GDP)

Socioeconomic resilience: 71%

Risk to well-being: \$230 million (1.0% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



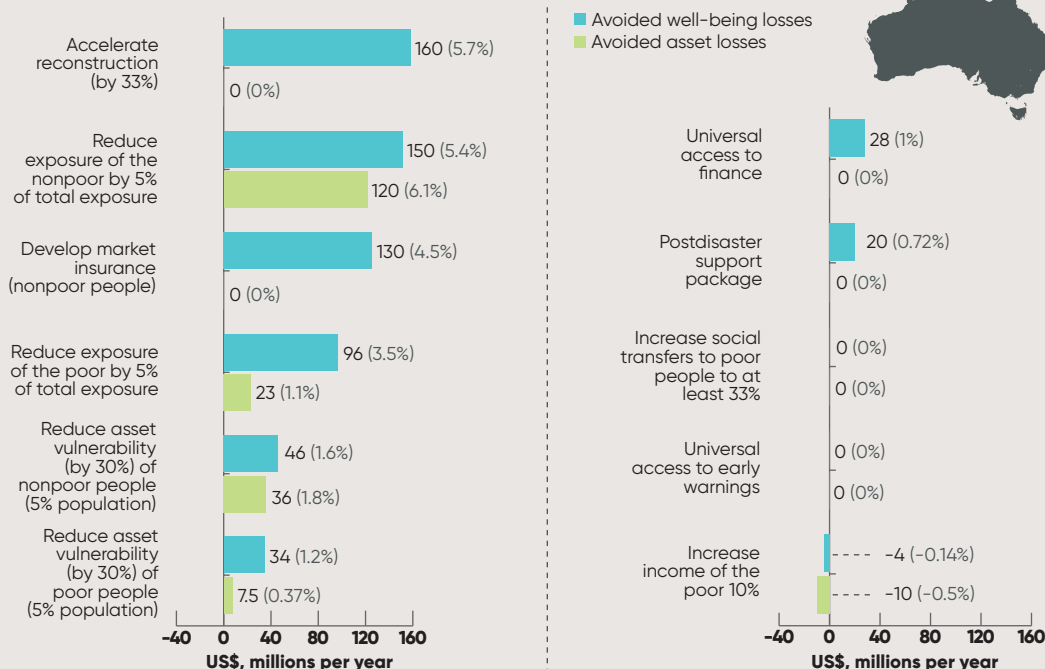
AUSTRALIA

Risk to assets: \$2,000 million (0.2% of GDP)

Socioeconomic resilience: 72%

Risk to well-being: \$2,800 million (0.28% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



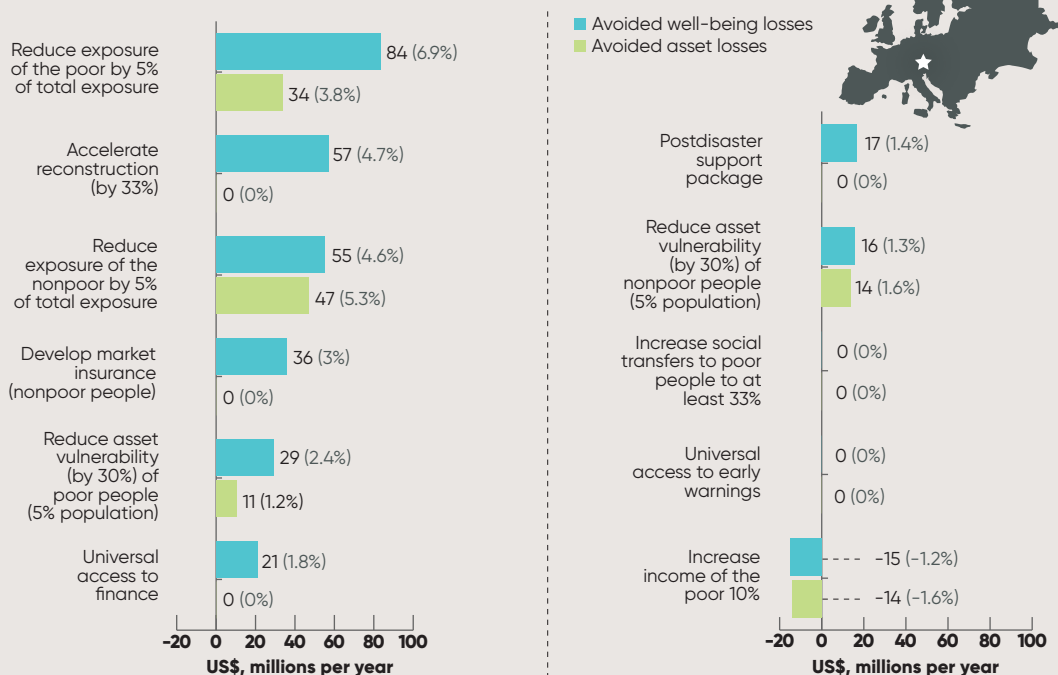
AUSTRIA

Risk to assets: \$880 million (0.24% of GDP)

Socioeconomic resilience: 73%

Risk to well-being: \$1,200 million (0.32% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



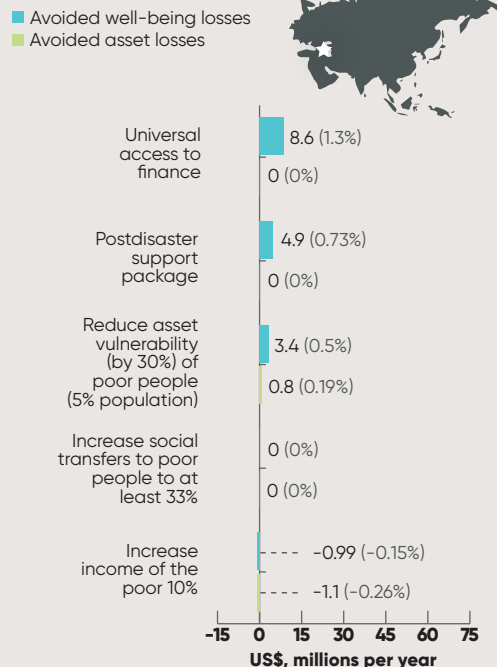
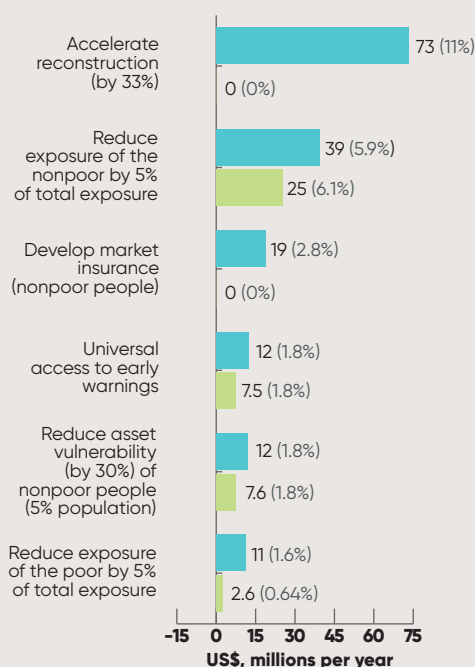
AZERBAIJAN

Risk to assets: \$410 million (0.26% of GDP)

Socioeconomic resilience: 61%

Risk to well-being: \$670 million (0.43% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



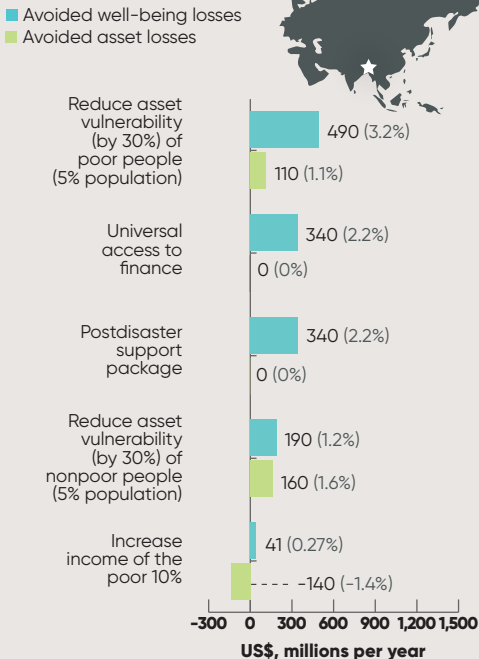
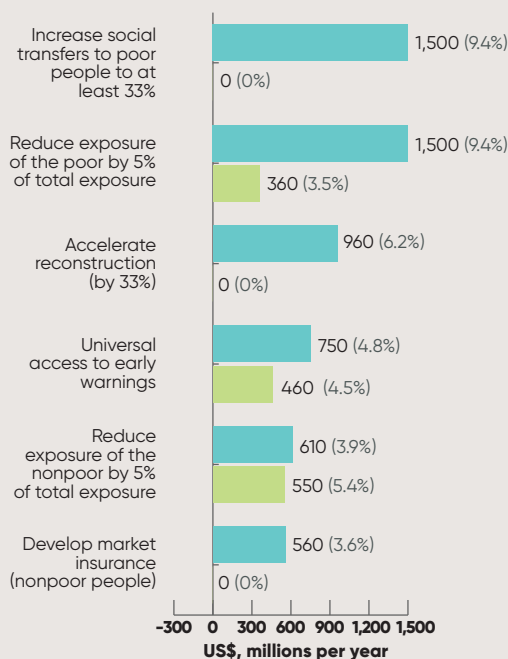
BANGLADESH

Risk to assets: \$10,000 million (2.3% of GDP)

Socioeconomic resilience: 66%

Risk to well-being: \$15,000 million (3.5% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



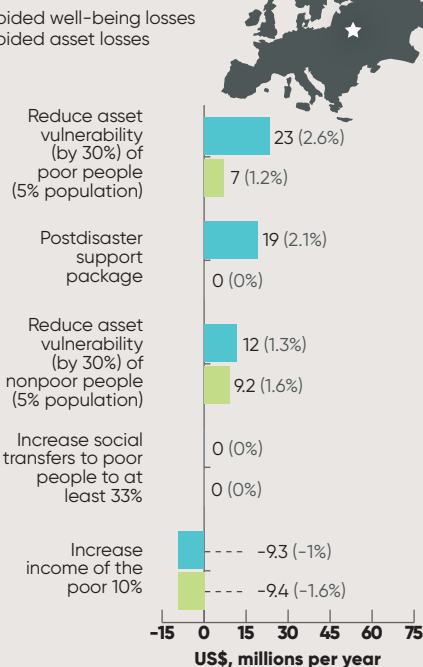
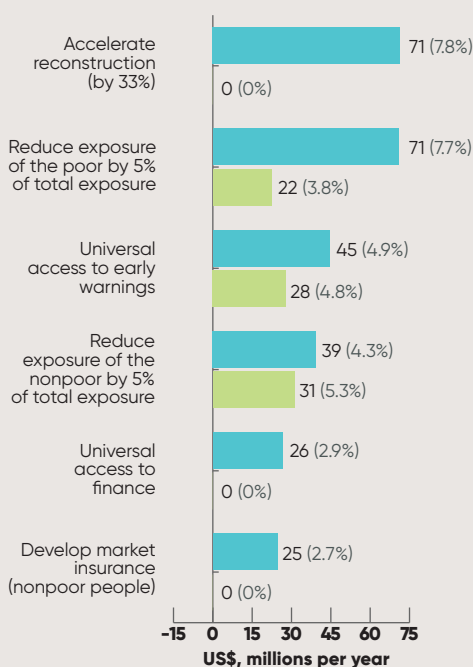
BELARUS

Risk to assets: \$590 million (0.36% of GDP)

Socioeconomic resilience: 64%

Risk to well-being: \$920 million (0.57% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



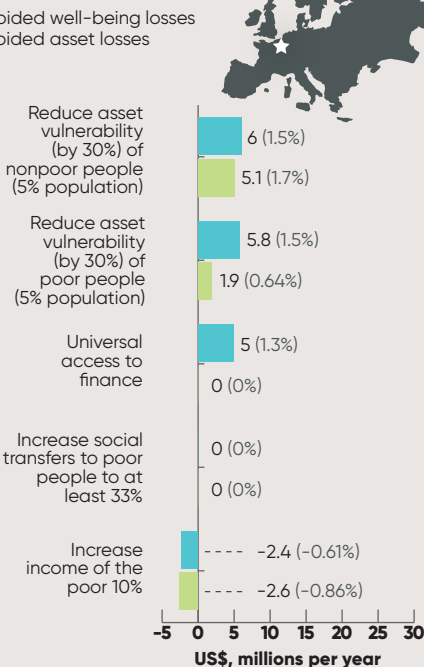
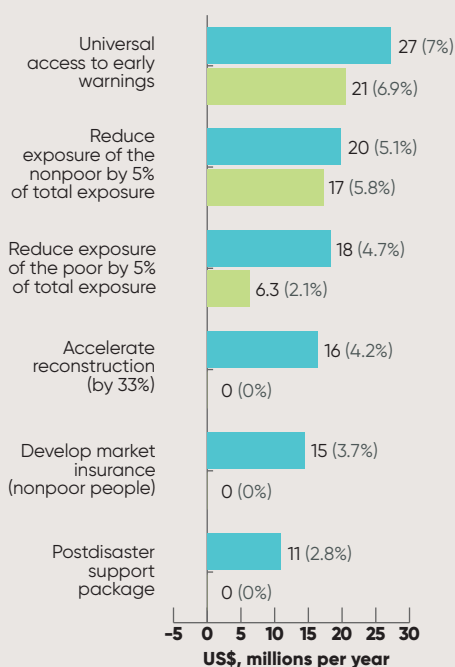
BELGIUM

Risk to assets: \$300 million (0.07% of GDP)

Socioeconomic resilience: 77%

Risk to well-being: \$390 million (0.09% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



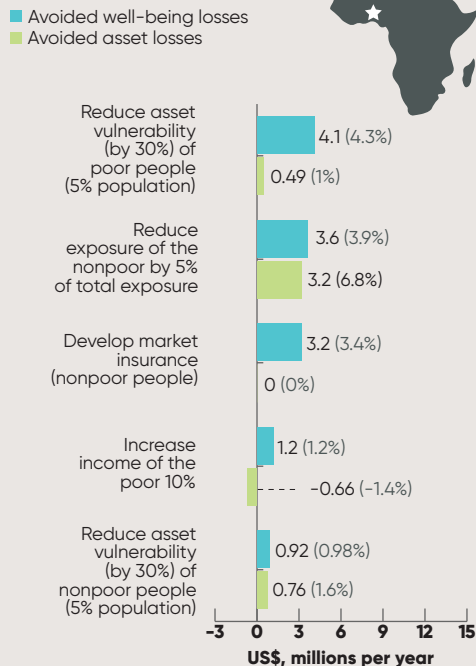
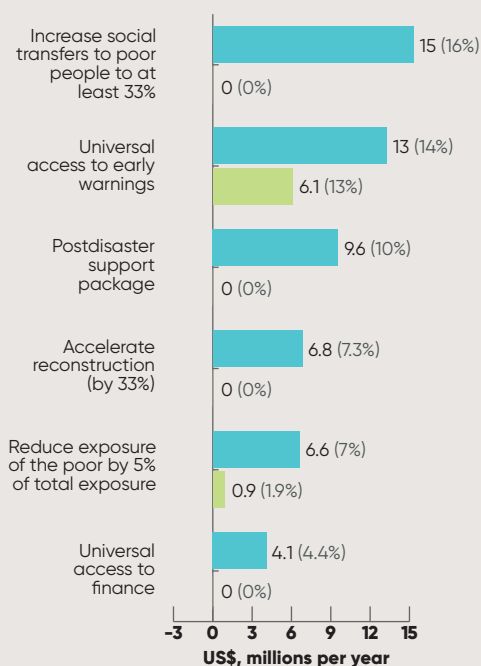
BENIN

Risk to assets: \$47 million (0.26% of GDP)

Socioeconomic resilience: 50%

Risk to well-being: \$94 million (0.53% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



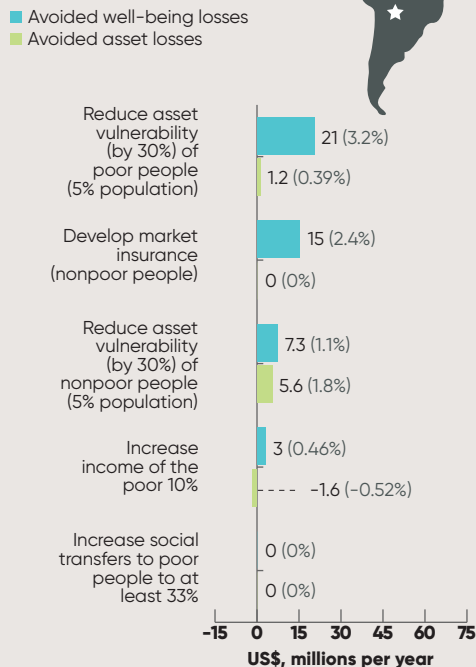
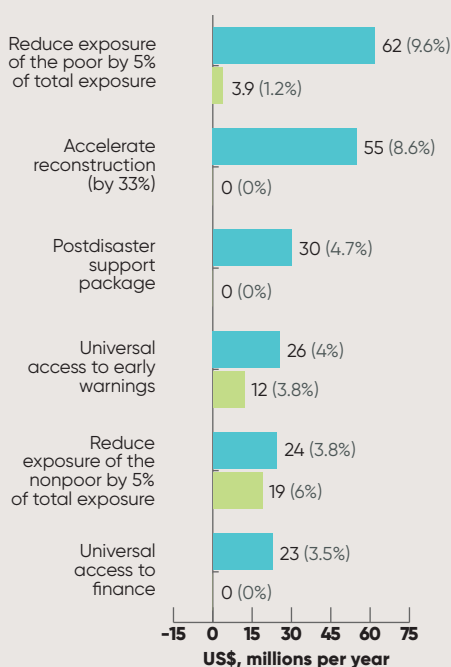
BOLIVIA

Risk to assets: \$320 million (0.5% of GDP)

Socioeconomic resilience: 49%

Risk to well-being: \$640 million (1.0% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



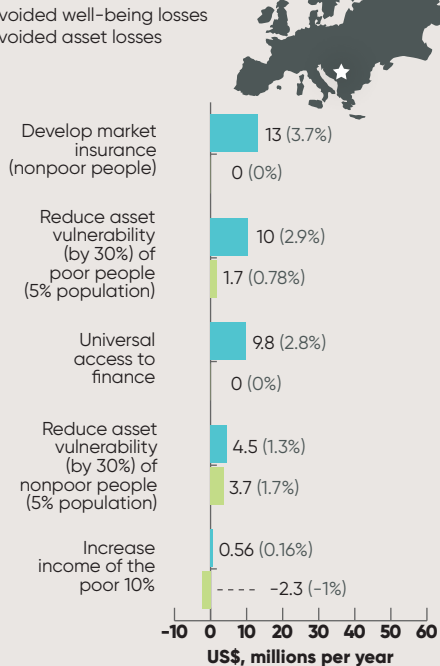
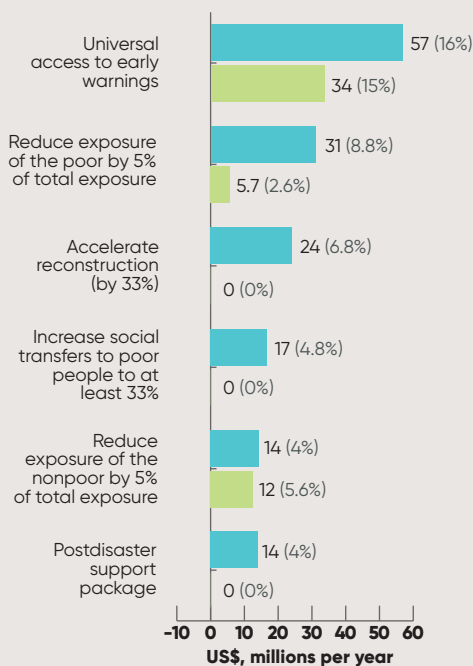
BOSNIA AND HERZEGOVINA

Risk to assets: \$220 million (0.62% of GDP)

Socioeconomic resilience: 63%

Risk to well-being: \$350 million (0.98% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



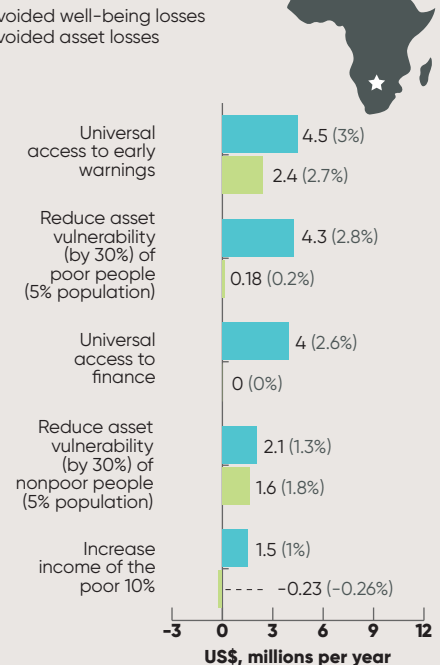
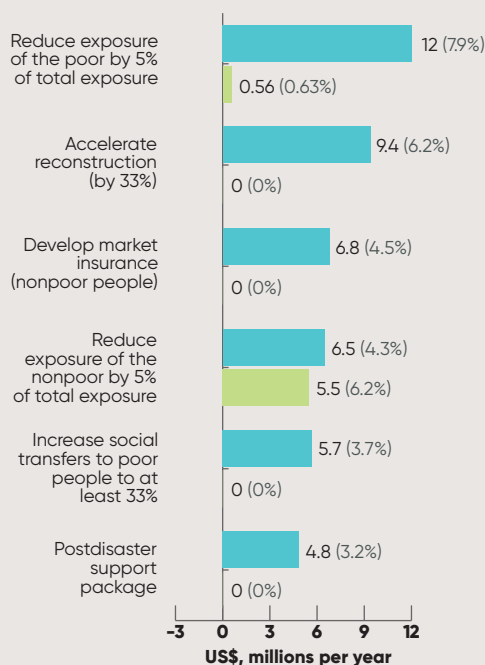
BOTSWANA

Risk to assets: \$89 million (0.29% of GDP)

Socioeconomic resilience: 58%

Risk to well-being: \$150 million (0.49% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



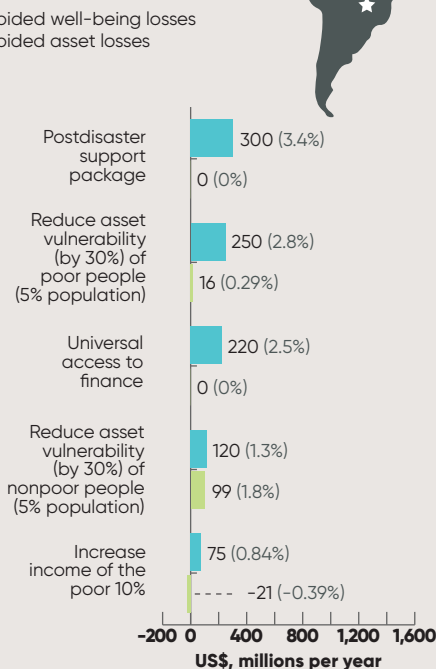
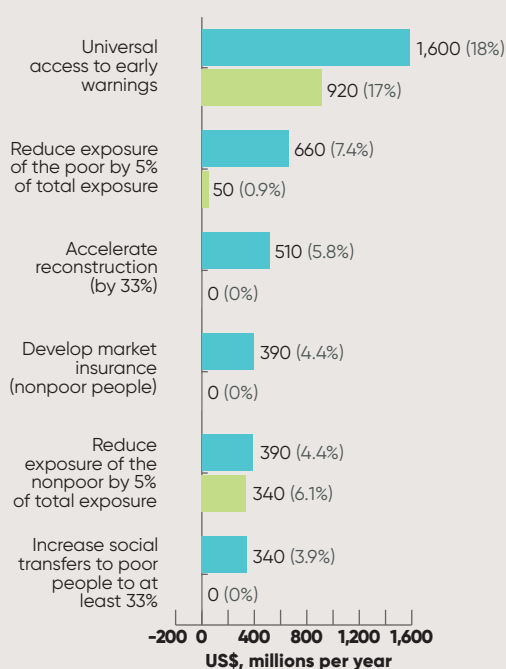
BRAZIL

Risk to assets: \$5,500 million (0.19% of GDP)

Socioeconomic resilience: 62%

Risk to well-being: \$8,900 million (0.3% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



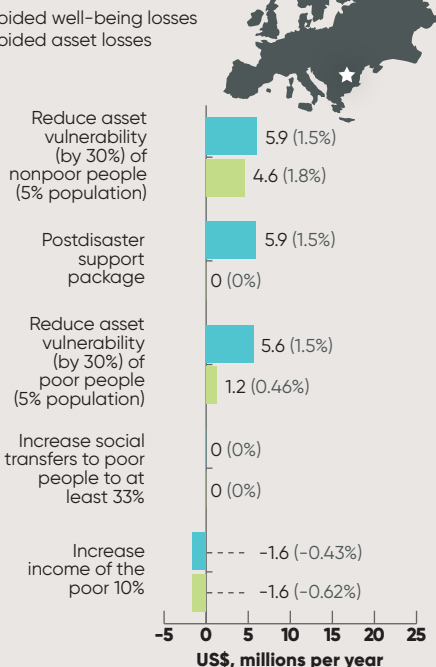
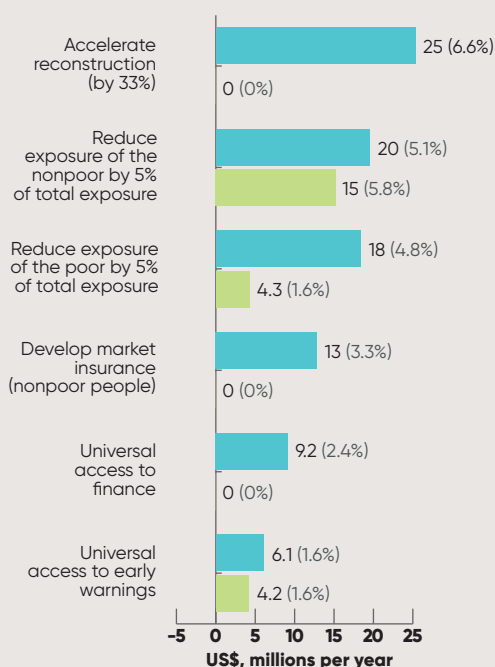
BULGARIA

Risk to assets: \$260 million (0.23% of GDP)

Socioeconomic resilience: 69%

Risk to well-being: \$380 million (0.34% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



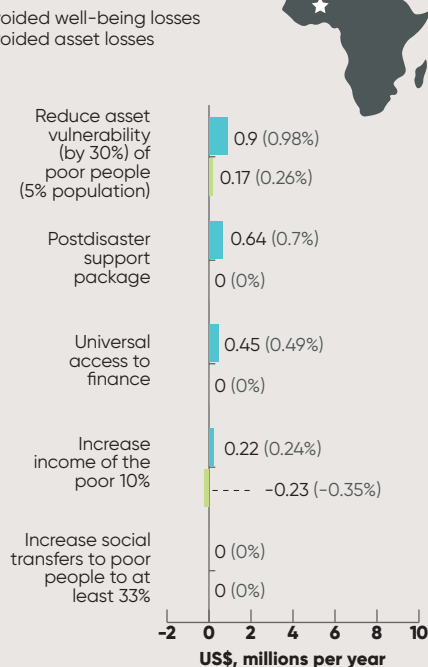
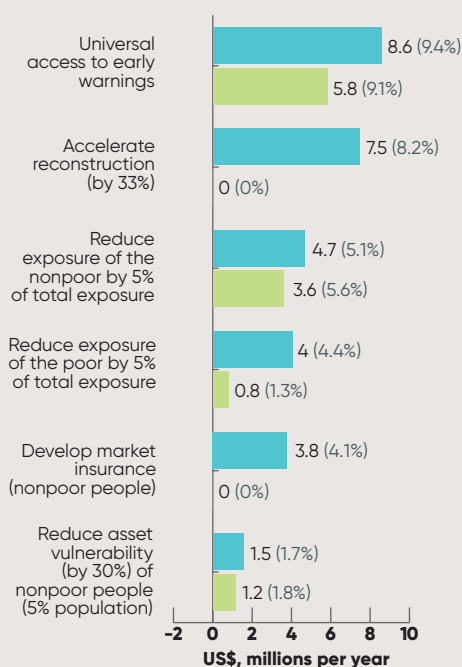
BURKINA FASO

Risk to assets: \$64 million (0.23% of GDP)

Socioeconomic resilience: 70%

Risk to well-being: \$91 million (0.33% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



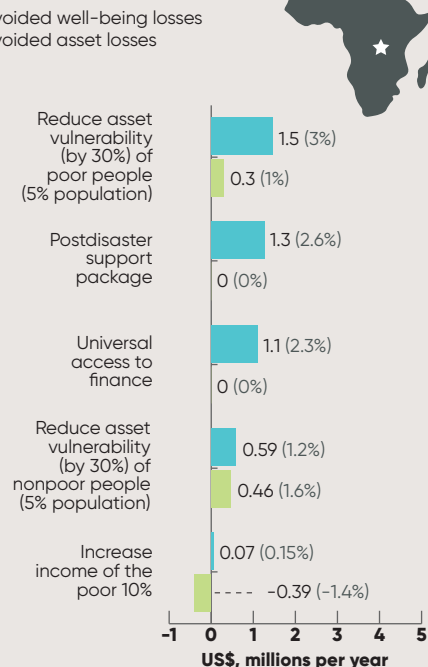
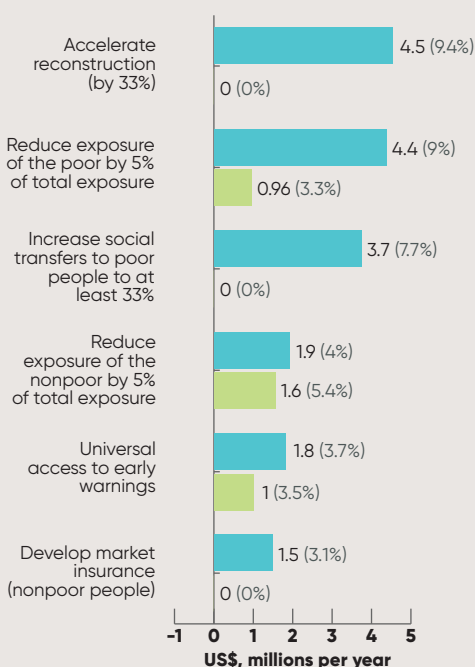
BURUNDI

Risk to assets: \$29 million (0.38% of GDP)

Socioeconomic resilience: 59%

Risk to well-being: \$48 million (0.64% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



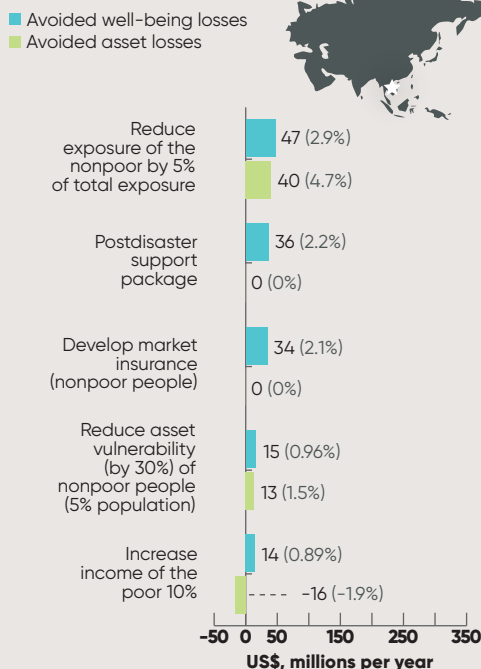
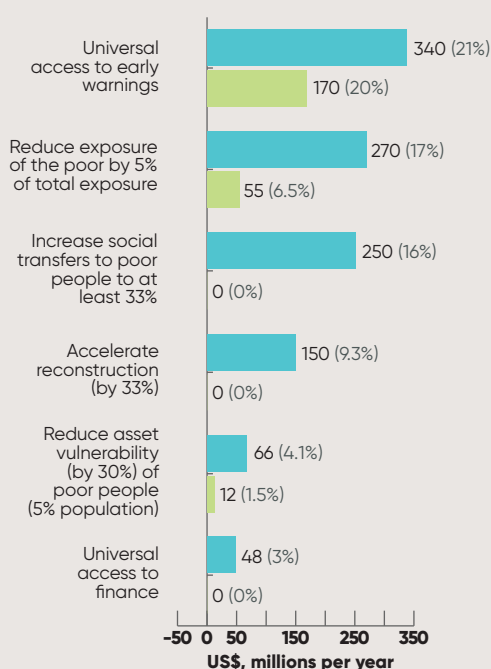
CAMBODIA

Risk to assets: \$840 million (1.9% of GDP)

Socioeconomic resilience: 53%

Risk to well-being: \$1,600 million (3.6% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



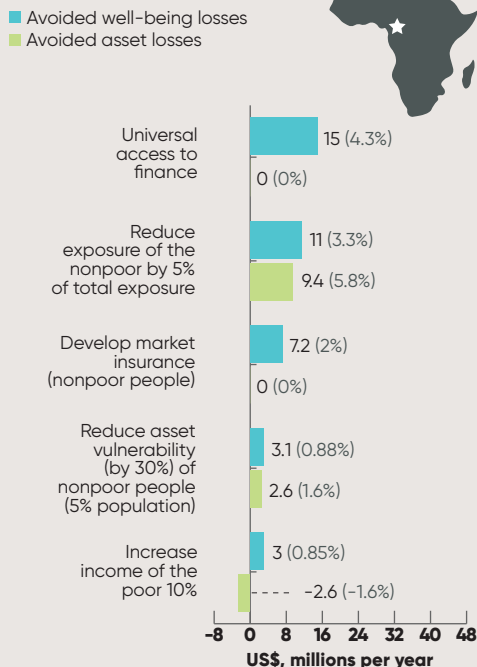
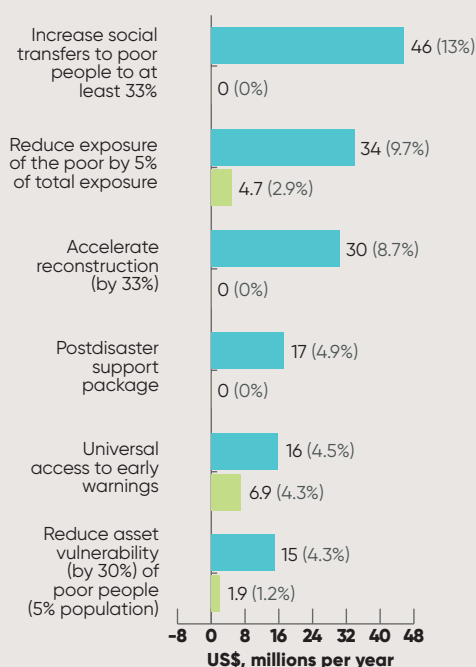
CAMEROON

Risk to assets: \$160 million (0.27% of GDP)

Socioeconomic resilience: 47%

Risk to well-being: \$350 million (0.57% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



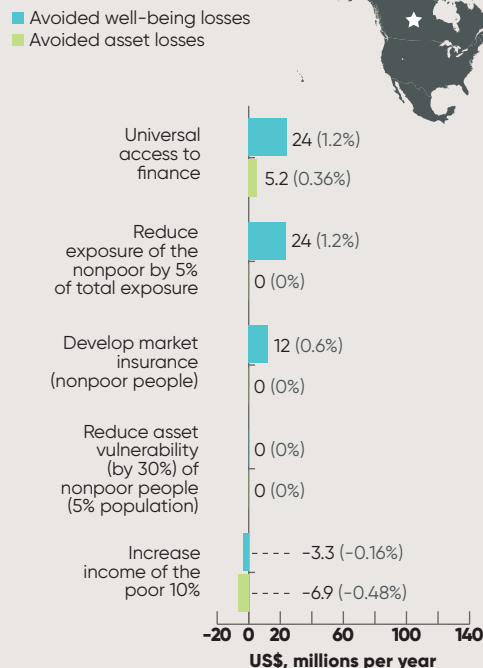
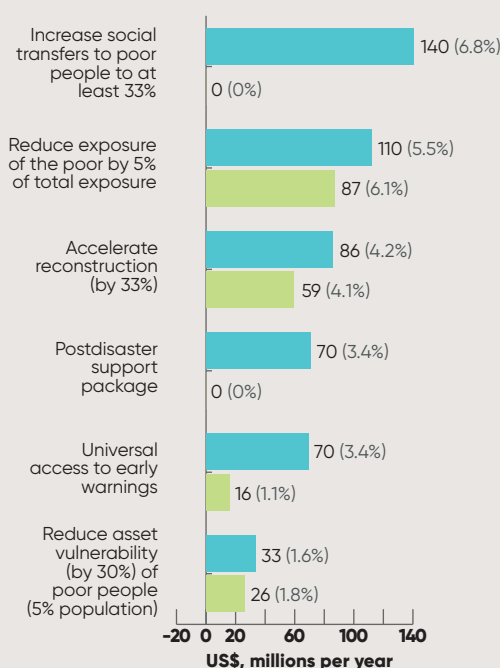
CANADA

Risk to assets: \$1,400 million (0.1% of GDP)

Socioeconomic resilience: 70%

Risk to well-being: \$2,100 million (0.14% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



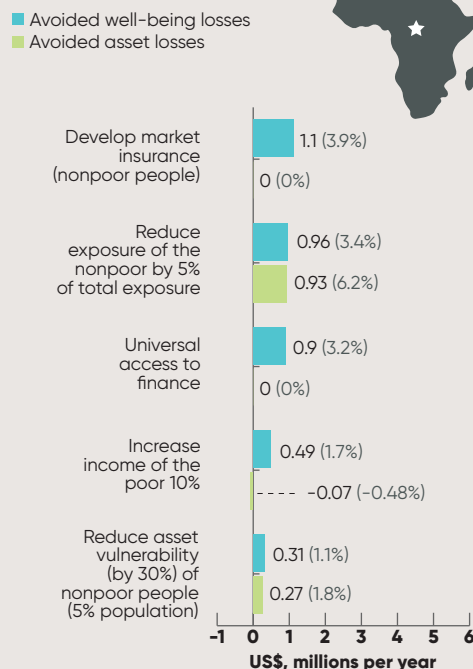
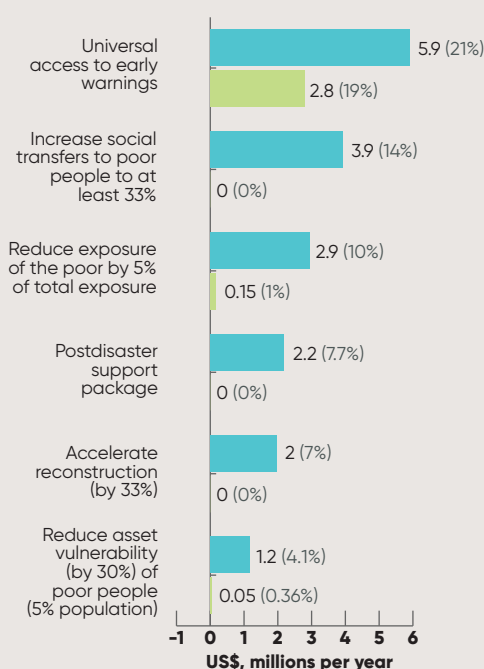
CENTRAL AFRICAN REPUBLIC

Risk to assets: \$15 million (0.55% of GDP)

Socioeconomic resilience: 52%

Risk to well-being: \$28 million (1.1% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



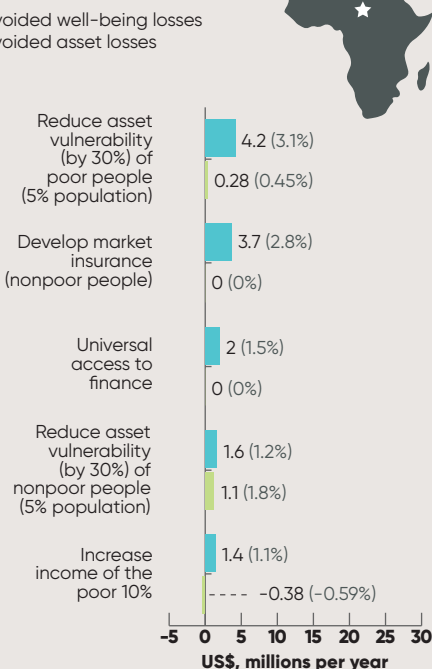
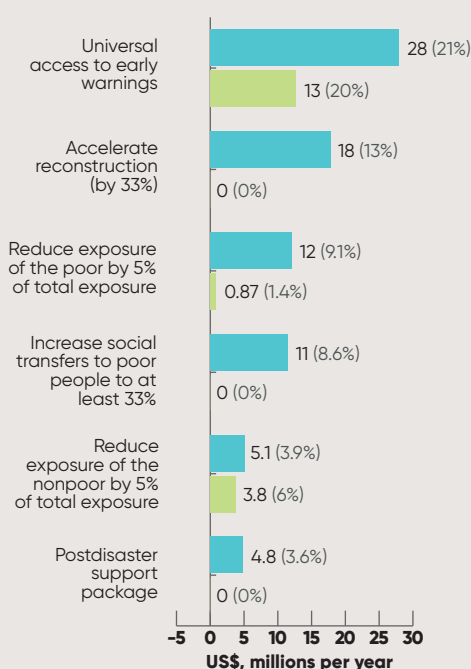
CHAD

Risk to assets: \$63 million (0.24% of GDP)

Socioeconomic resilience: 48%

Risk to well-being: \$130 million (0.51% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



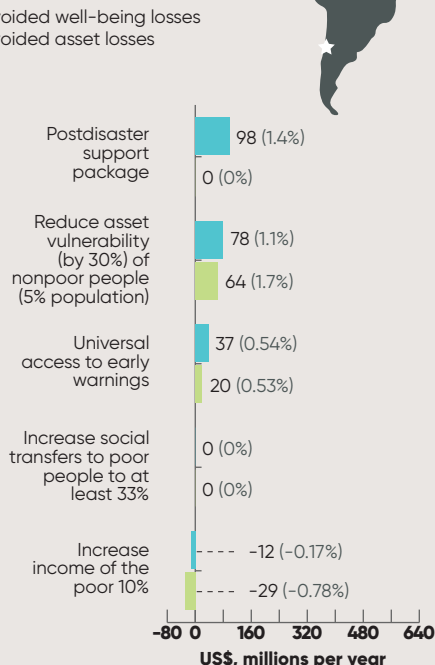
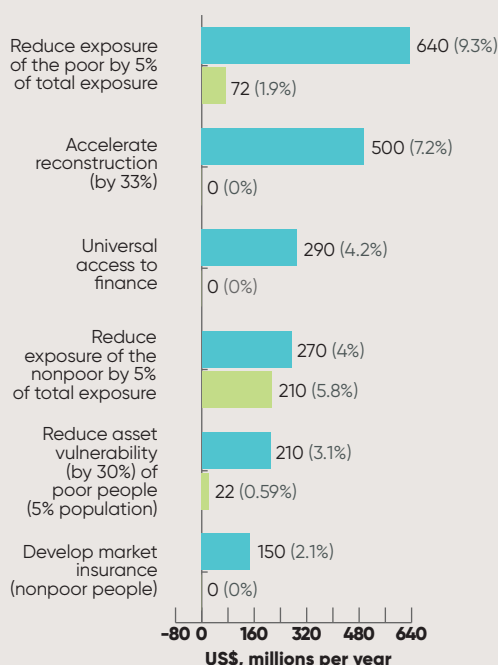
CHILE

Risk to assets: \$3,700 million (0.97% of GDP)

Socioeconomic resilience: 54%

Risk to well-being: \$6,900 million (1.8% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



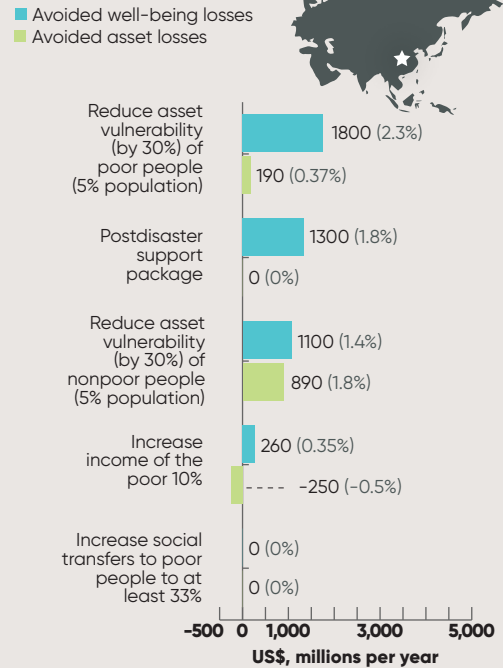
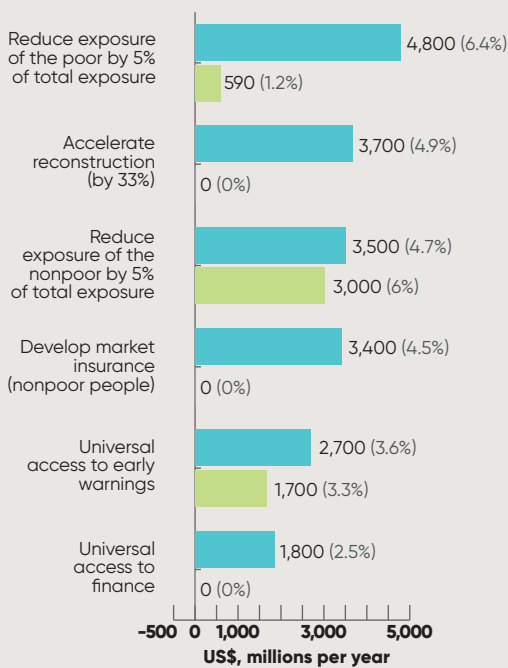
CHINA

Risk to assets: \$50,000 million (0.32% of GDP)

Socioeconomic resilience: 67%

Risk to well-being: \$75,000 million (0.48% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



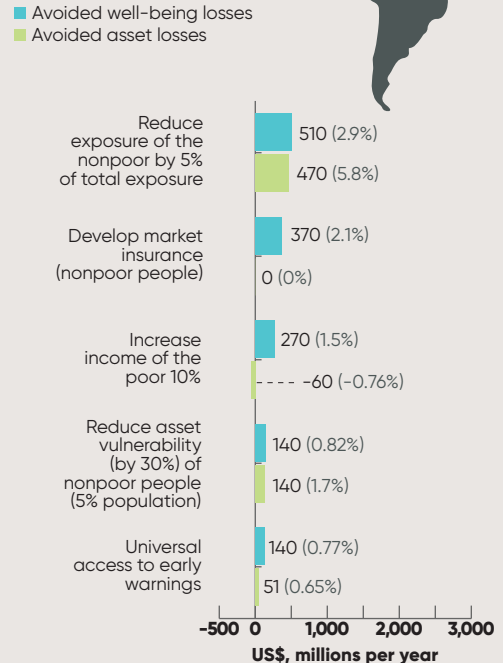
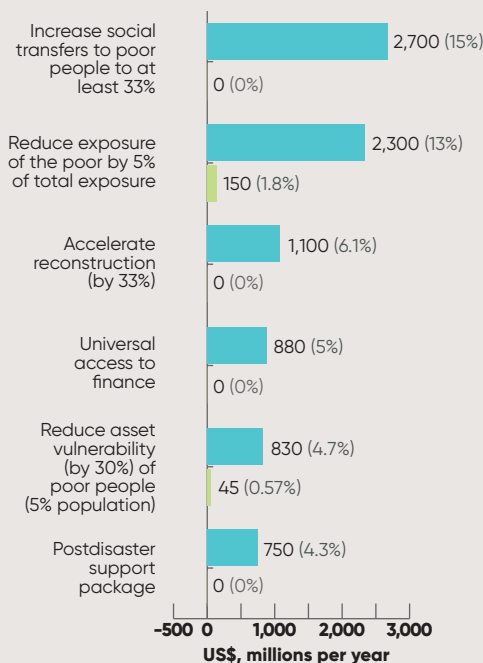
COLOMBIA

Risk to assets: \$8,000 million (1.4% of GDP)

Socioeconomic resilience: 45%

Risk to well-being: \$18,000 million (3.0% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



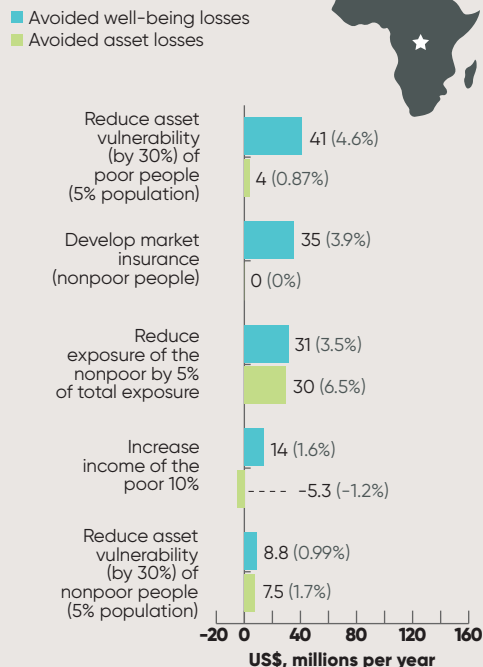
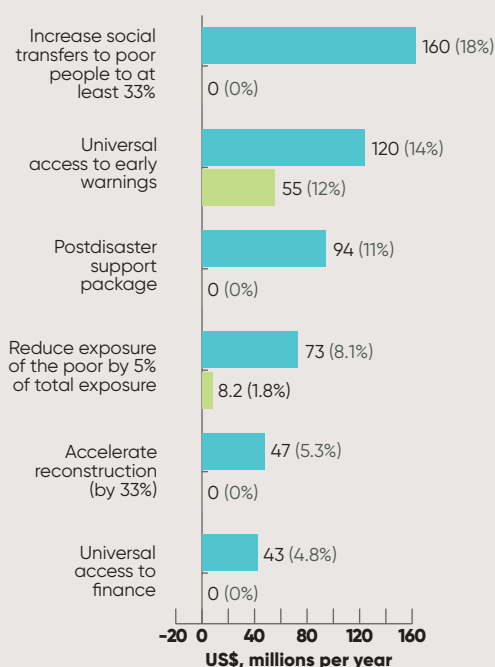
CONGO, DEM. REP.

Risk to assets: \$460 million (0.86% of GDP)

Socioeconomic resilience: 51%

Risk to well-being: \$890 million (1.7% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



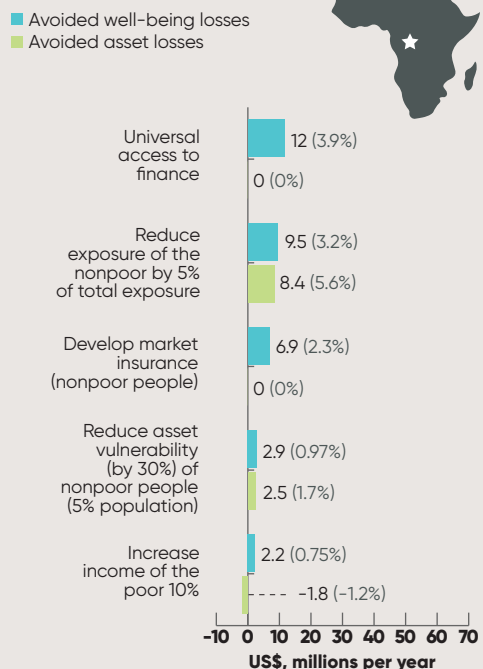
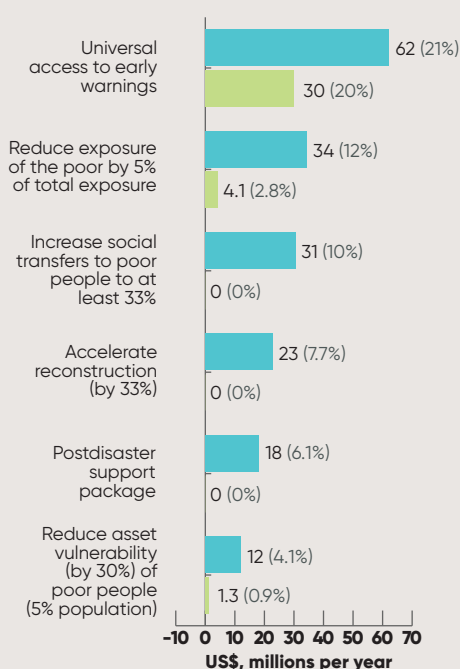
CONGO, REP.

Risk to assets: \$150 million (0.59% of GDP)

Socioeconomic resilience: 51%

Risk to well-being: \$300 million (1.2% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



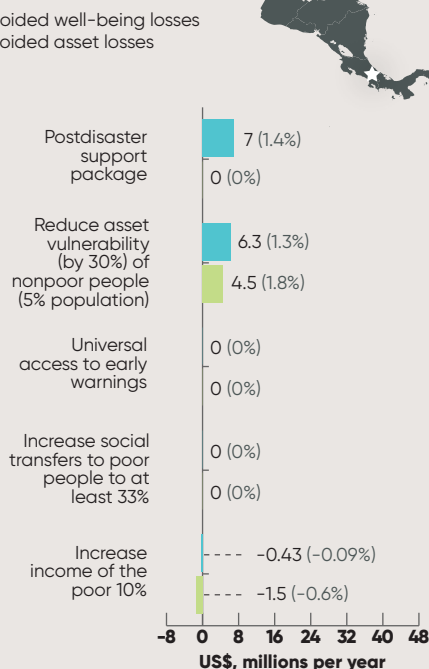
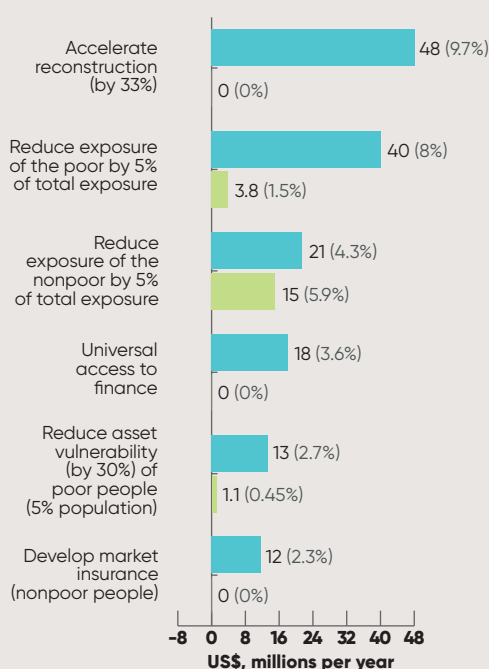
COSTA RICA

Risk to assets: \$260 million (0.39% of GDP)

Socioeconomic resilience: 51%

Risk to well-being: \$500 million (0.76% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



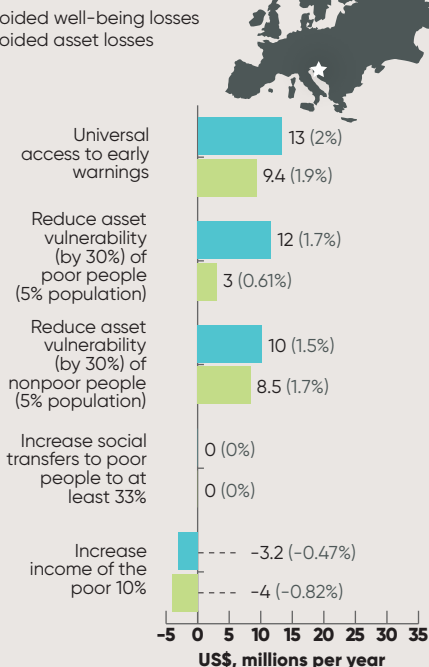
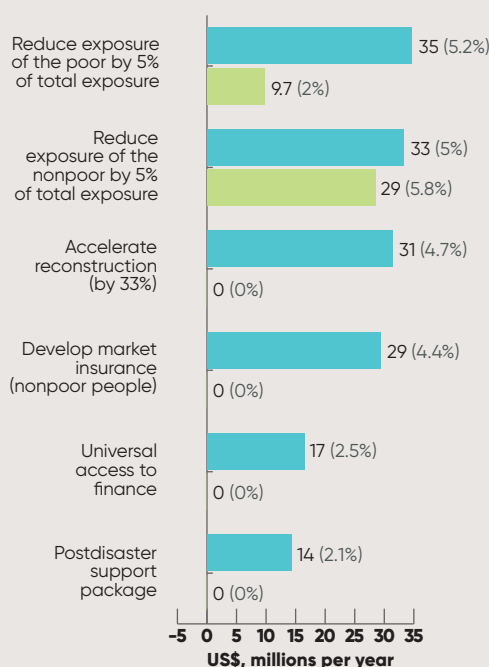
CROATIA

Risk to assets: \$490 million (0.58% of GDP)

Socioeconomic resilience: 74%

Risk to well-being: \$670 million (0.78% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



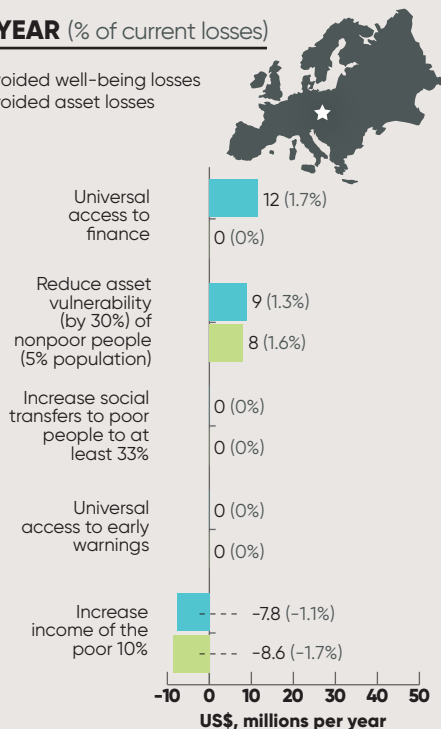
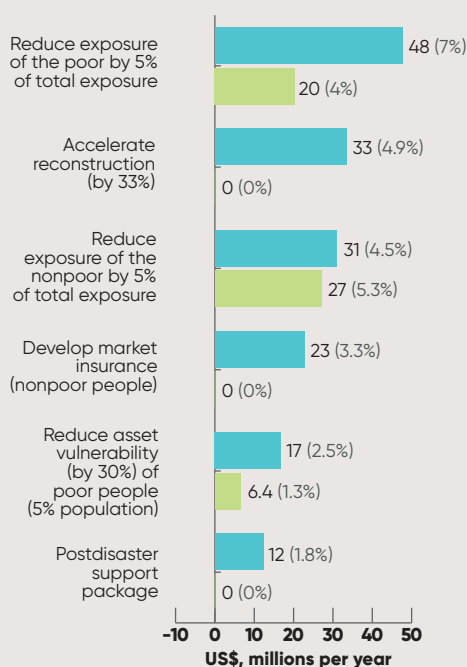
CZECH REPUBLIC

Risk to assets: \$510 million (0.17% of GDP)

Socioeconomic resilience: 75%

Risk to well-being: \$680 million (0.23% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



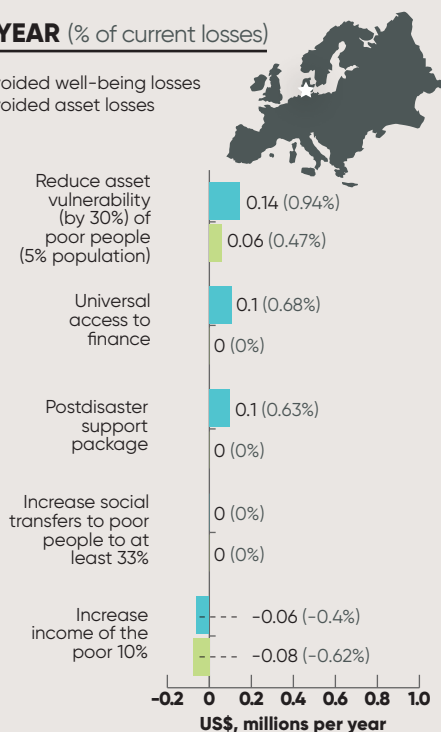
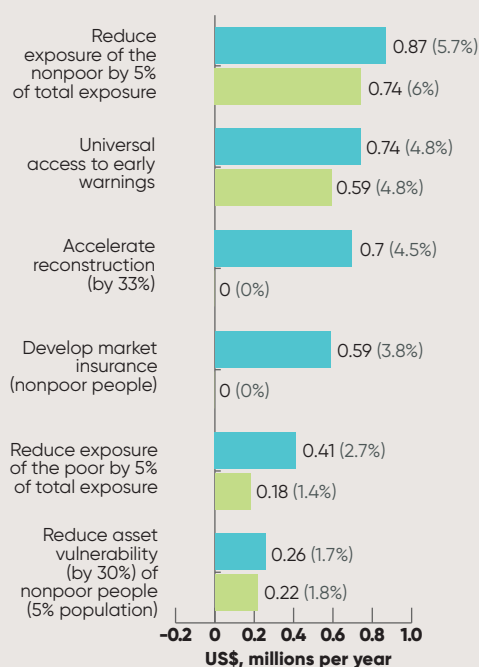
DENMARK

Risk to assets: \$12 million (0.01% of GDP)

Socioeconomic resilience: 81%

Risk to well-being: \$15 million (0.01% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



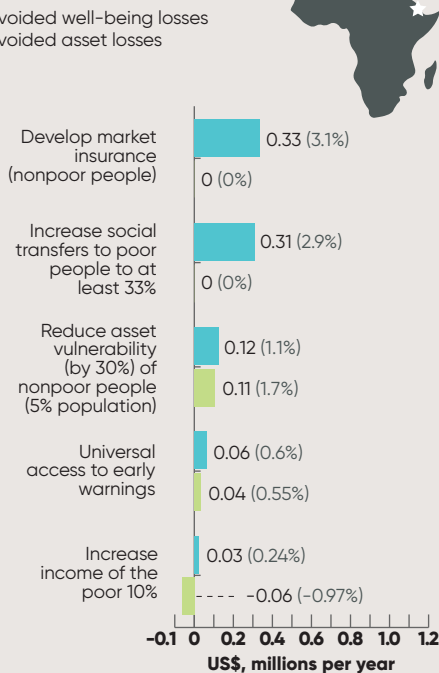
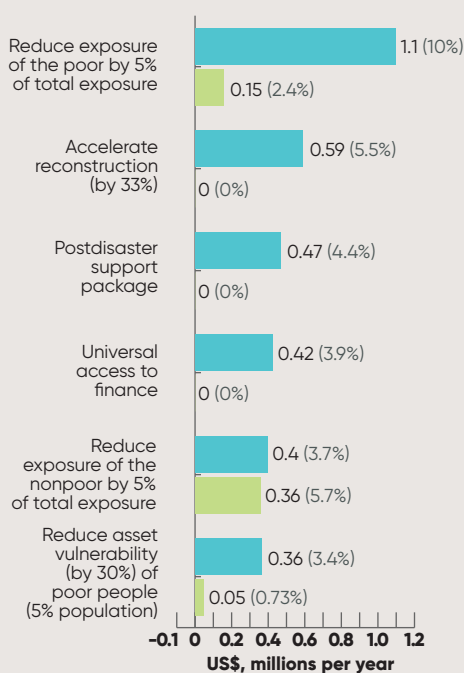
DJIBOUTI

Risk to assets: \$6.4 million (0.25% of GDP)

Socioeconomic resilience: 59%

Risk to well-being: \$11 million (0.42% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



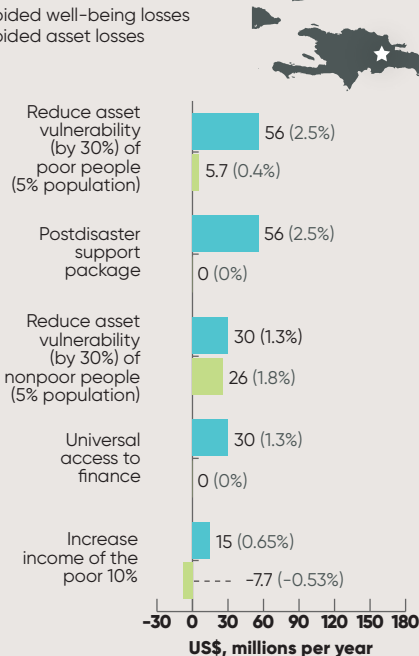
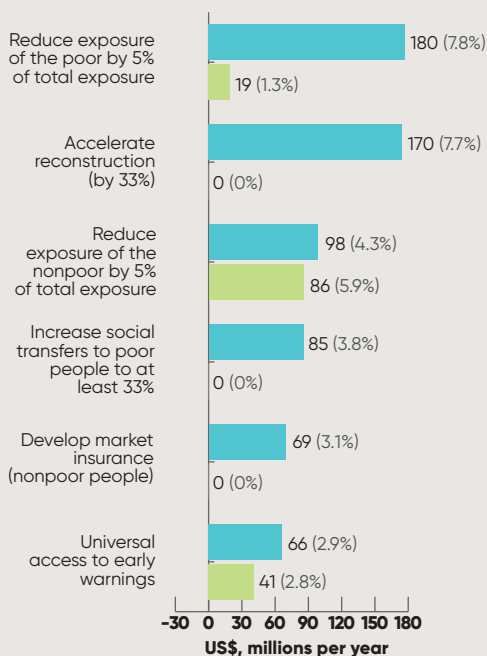
DOMINICAN REPUBLIC

Risk to assets: \$1,400 million (1.2% of GDP)

Socioeconomic resilience: 64%

Risk to well-being: \$2,300 million (1.8% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



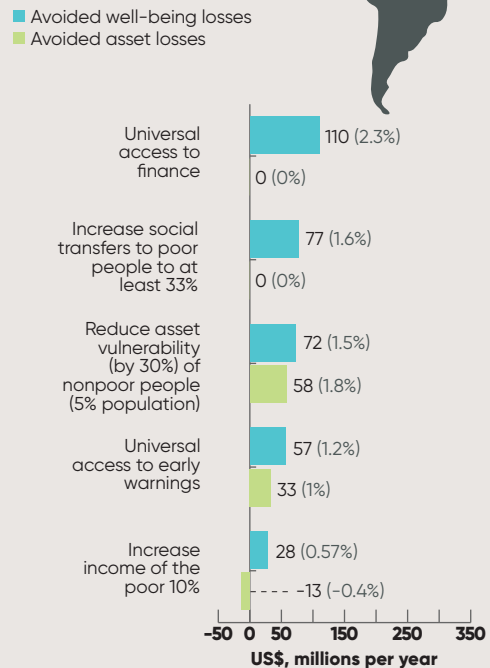
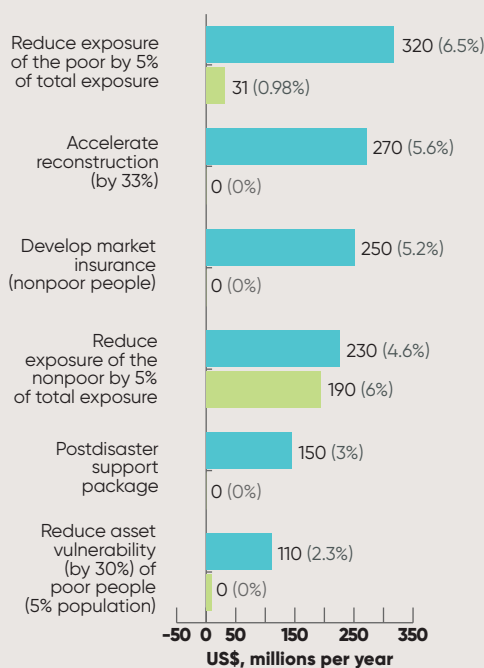
ECUADOR

Risk to assets: \$3,200 million (1.9% of GDP)

Socioeconomic resilience: 66%

Risk to well-being: \$4,900 million (2.9% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



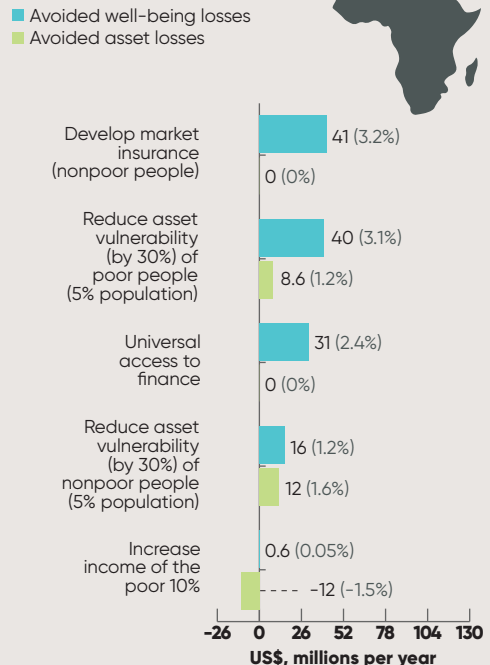
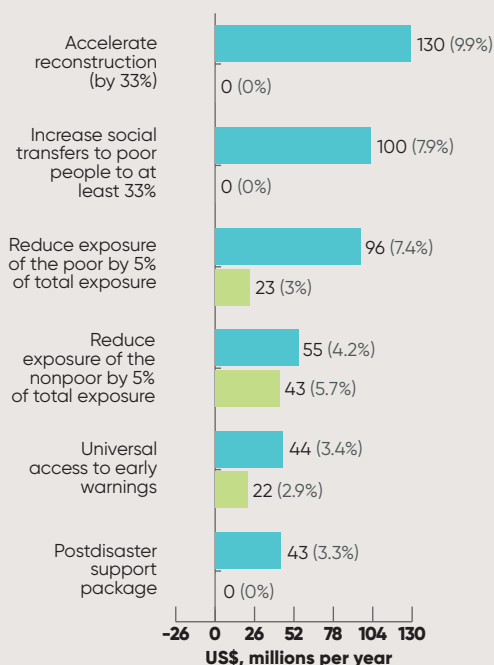
EGYPT, ARAB REP.

Risk to assets: \$750 million (0.09% of GDP)

Socioeconomic resilience: 58%

Risk to well-being: \$1,300 million (0.15% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



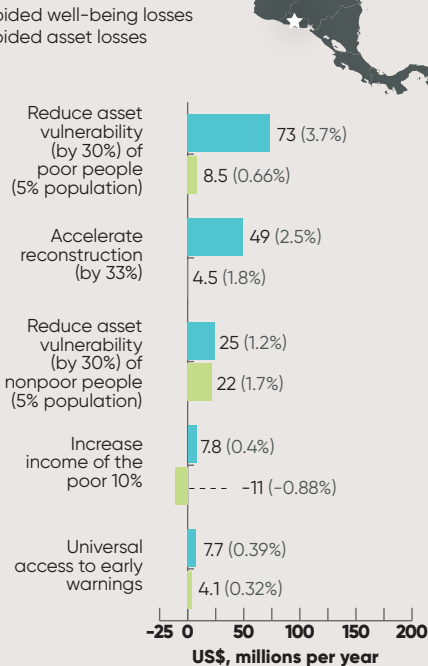
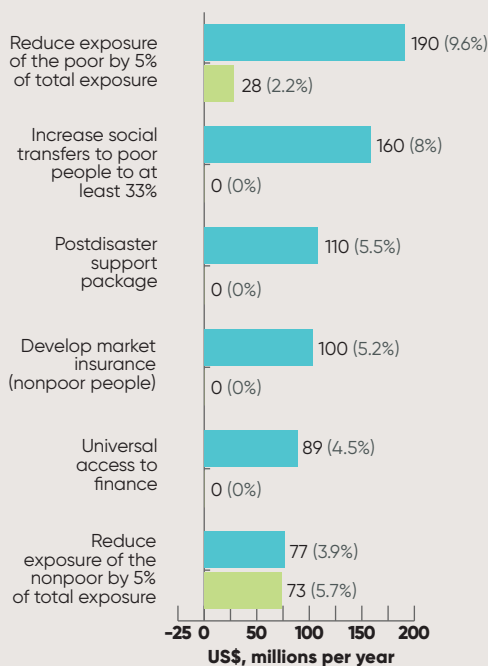
EL SALVADOR

Risk to assets: \$1,300 million (2.7% of GDP)

Socioeconomic resilience: 65%

Risk to well-being: \$2,000 million (4.2% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



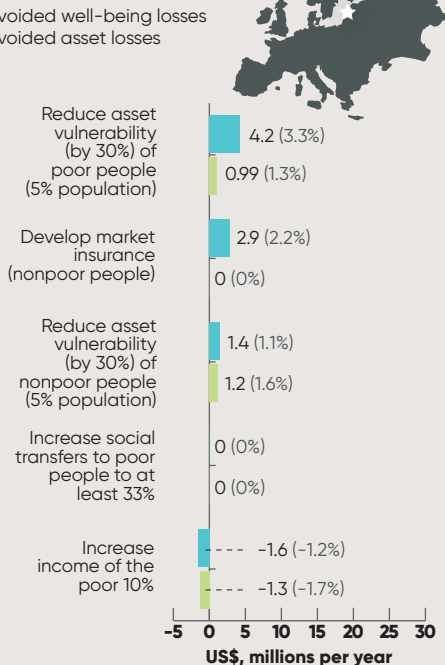
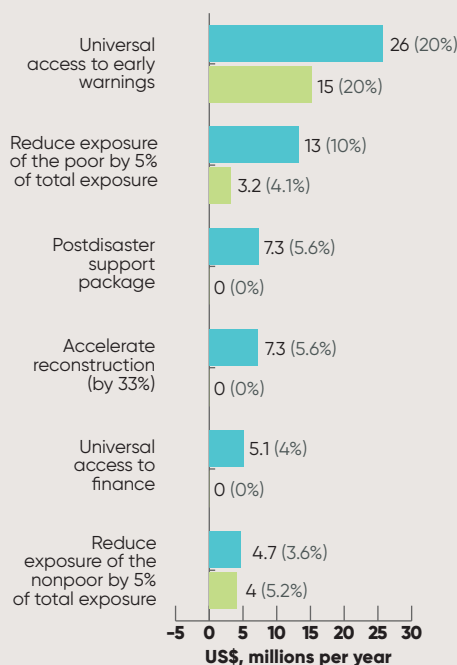
ESTONIA

Risk to assets: \$77 million (0.23% of GDP)

Socioeconomic resilience: 60%

Risk to well-being: \$130 million (0.39% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



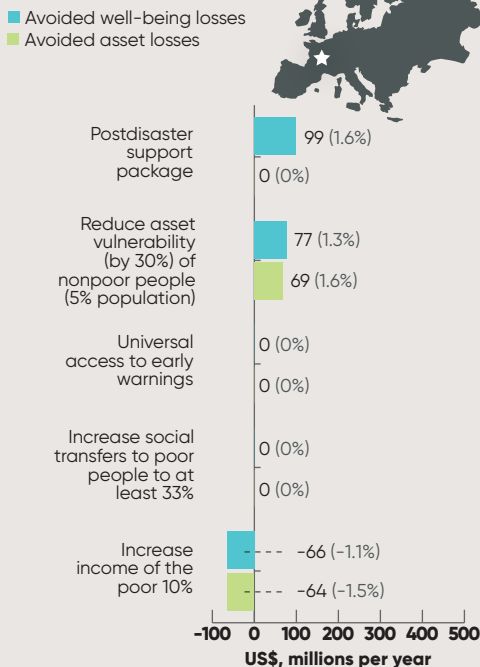
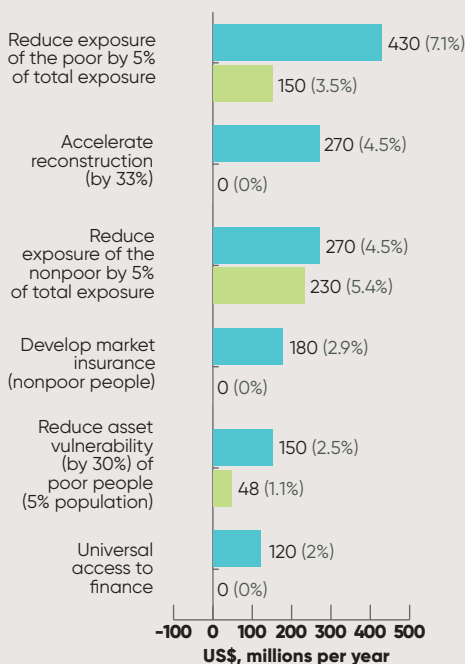
FRANCE

Risk to assets: \$4,300 million (0.18% of GDP)

Socioeconomic resilience: 72%

Risk to well-being: \$6,000 million (0.25% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



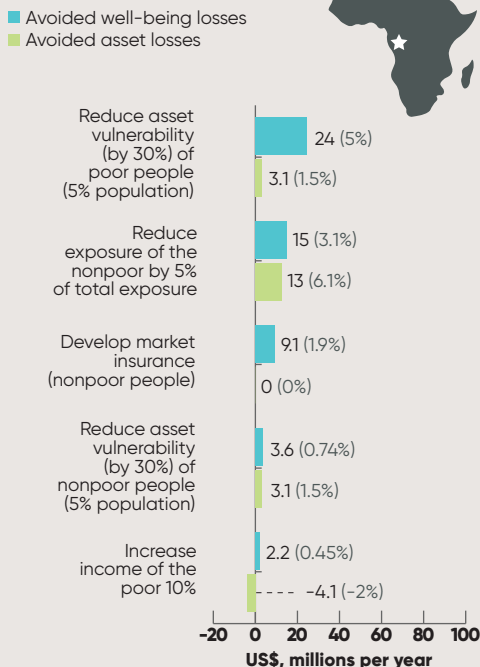
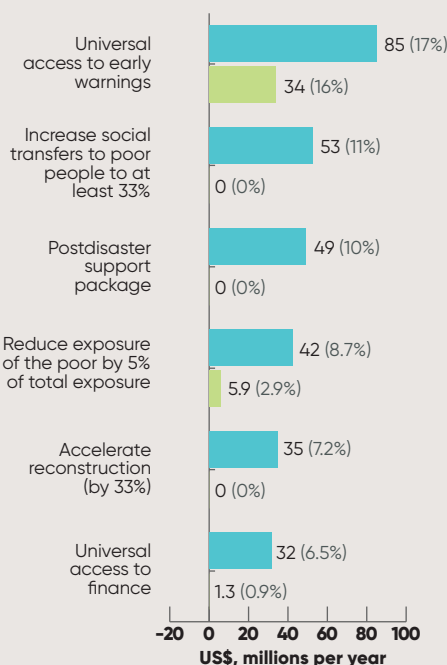
GABON

Risk to assets: \$210 million (0.66% of GDP)

Socioeconomic resilience: 42%

Risk to well-being: \$480 million (1.6% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



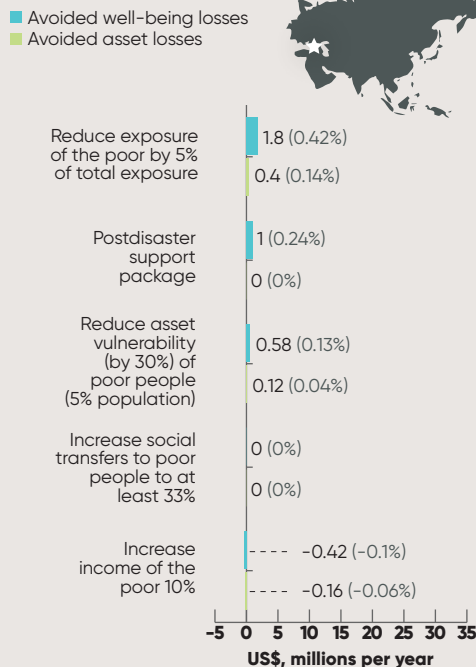
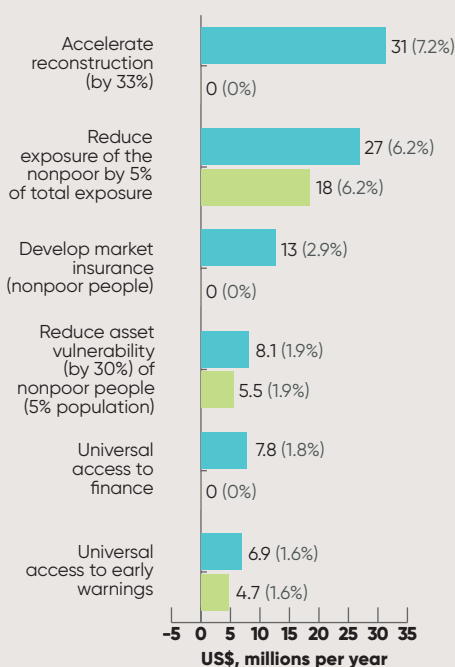
GEORGIA

Risk to assets: \$300 million (0.95% of GDP)

Socioeconomic resilience: 68%

Risk to well-being: \$430 million (1.4% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



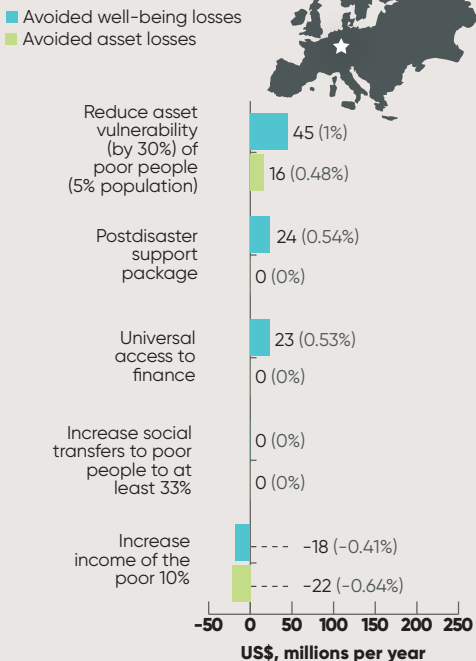
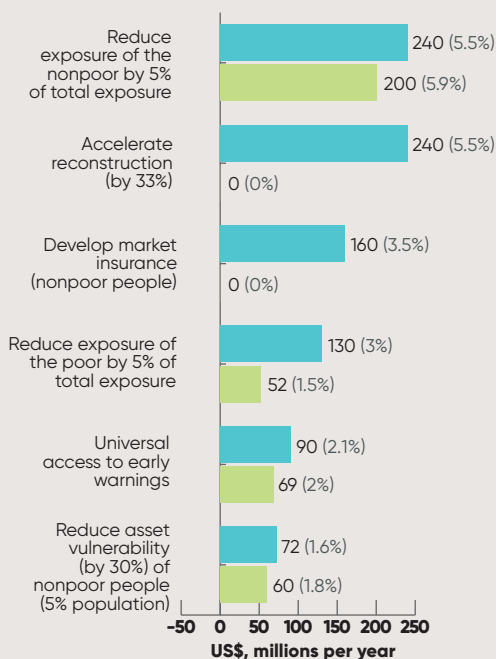
GERMANY

Risk to assets: \$3,400 million (0.1% of GDP)

Socioeconomic resilience: 78%

Risk to well-being: \$4,400 million (0.13% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



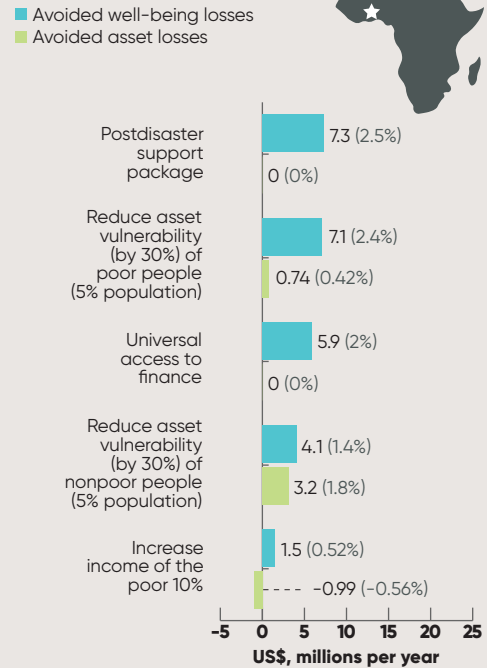
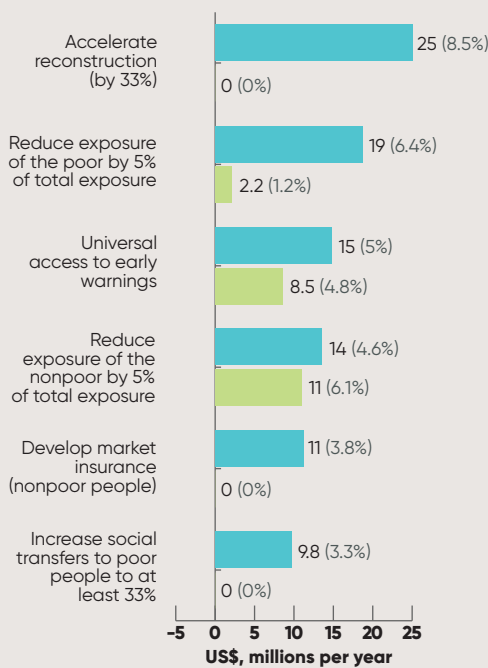
GHANA

Risk to assets: \$180 million (0.18% of GDP)

Socioeconomic resilience: 61%

Risk to well-being: \$290 million (0.29% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



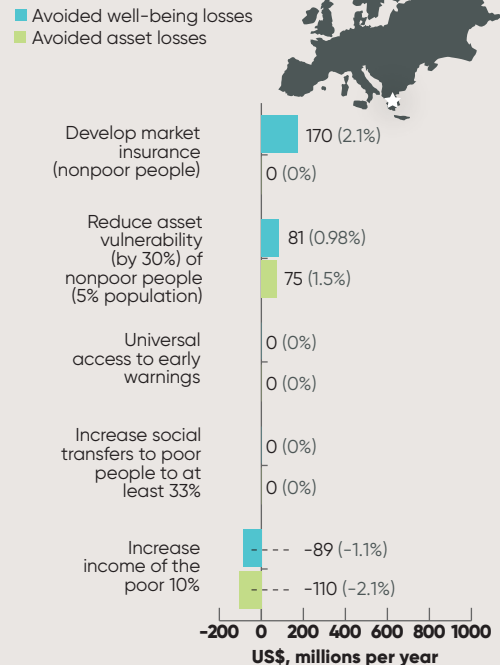
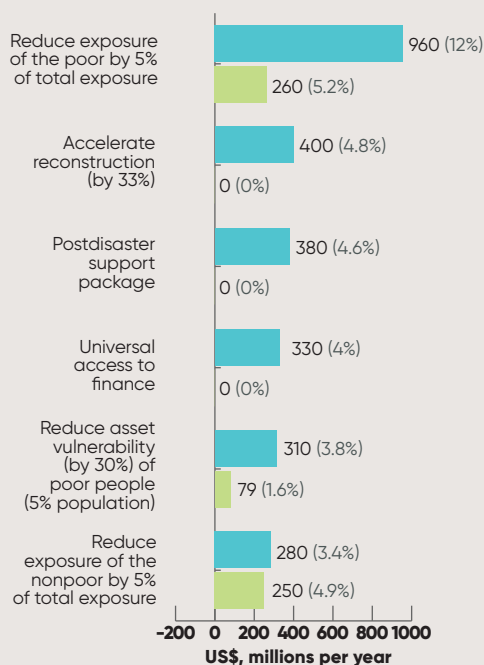
GREECE

Risk to assets: \$5,100 million (1.9% of GDP)

Socioeconomic resilience: 61%

Risk to well-being: \$8,300 million (3.1% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



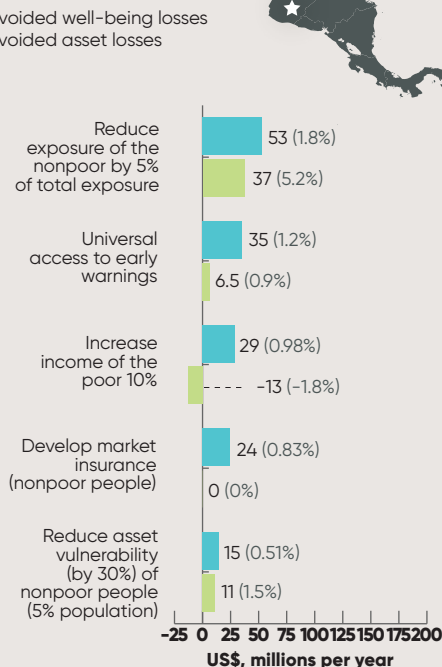
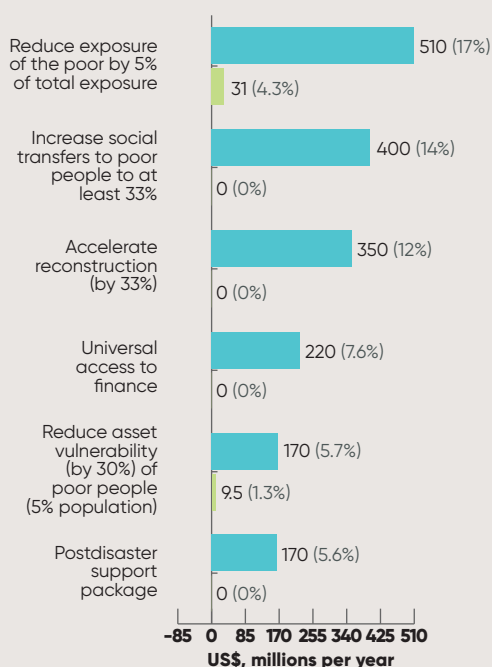
GUATEMALA

Risk to assets: \$720 million (0.66% of GDP)

Socioeconomic resilience: 25%

Risk to well-being: \$2,900 million (2.7% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



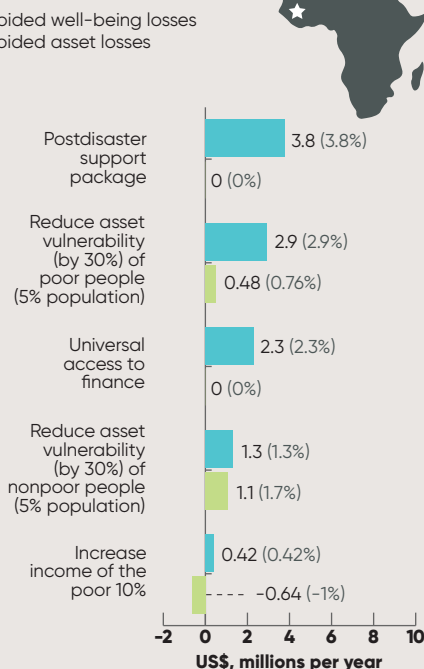
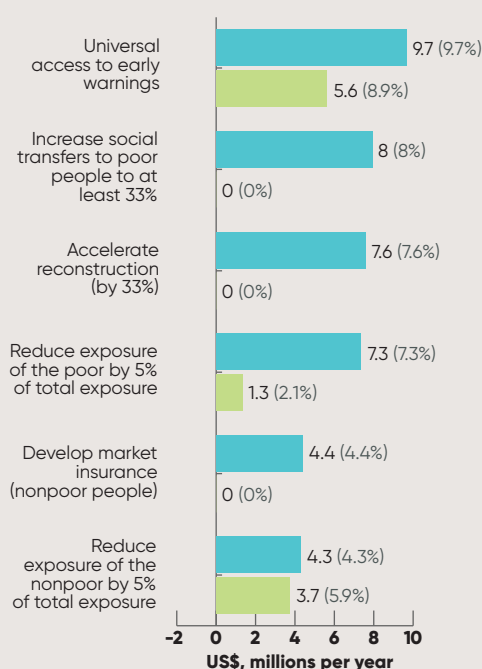
GUINEA

Risk to assets: \$63 million (0.44% of GDP)

Socioeconomic resilience: 63%

Risk to well-being: \$100 million (0.7% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



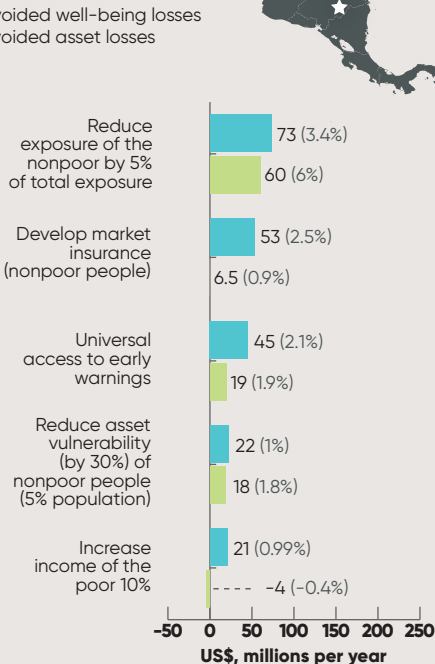
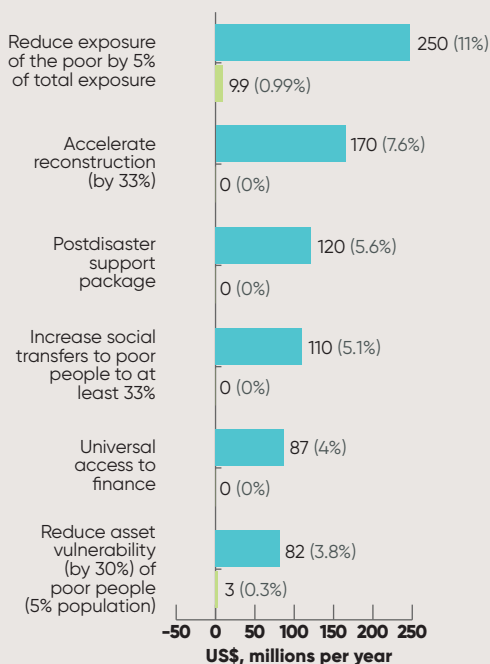
HONDURAS

Risk to assets: \$1,000 million (2.8% of GDP)

Socioeconomic resilience: 46%

Risk to well-being: \$2,200 million (6.0% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



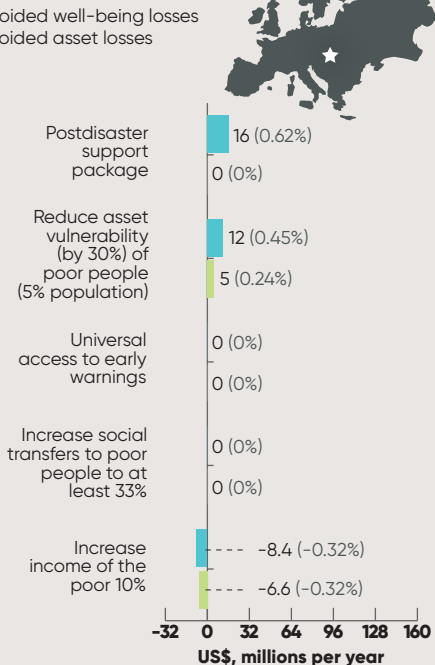
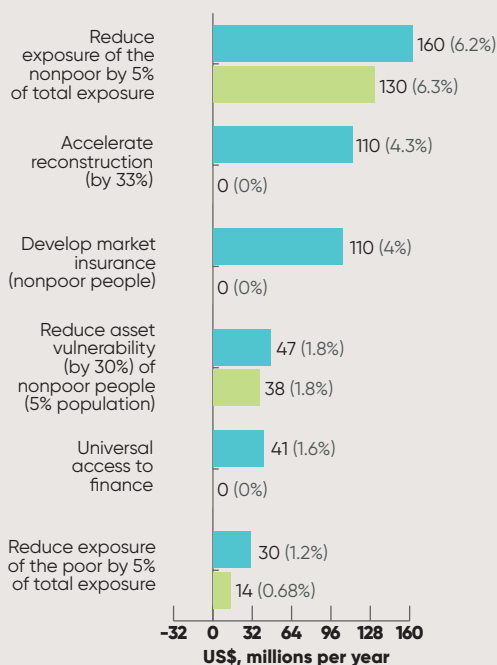
HUNGARY

Risk to assets: \$2,100 million (0.93% of GDP)

Socioeconomic resilience: 80%

Risk to well-being: \$2,600 million (1.2% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



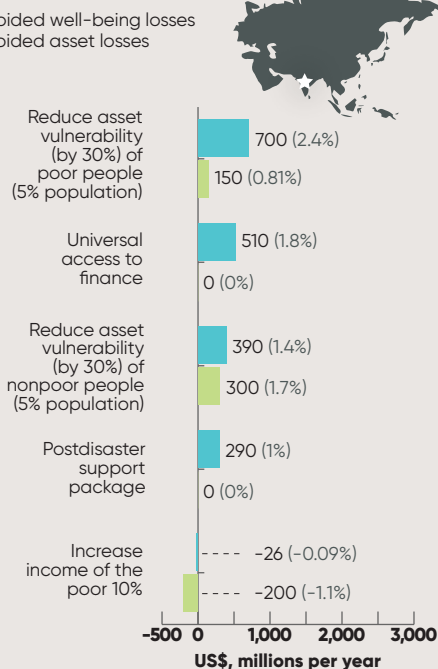
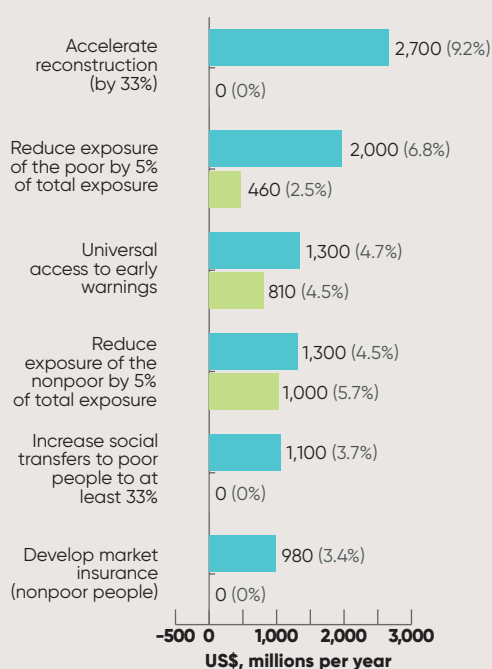
INDIA

Risk to assets: \$18,000 million (0.28% of GDP)

Socioeconomic resilience: 63%

Risk to well-being: \$29,000 million (0.44% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



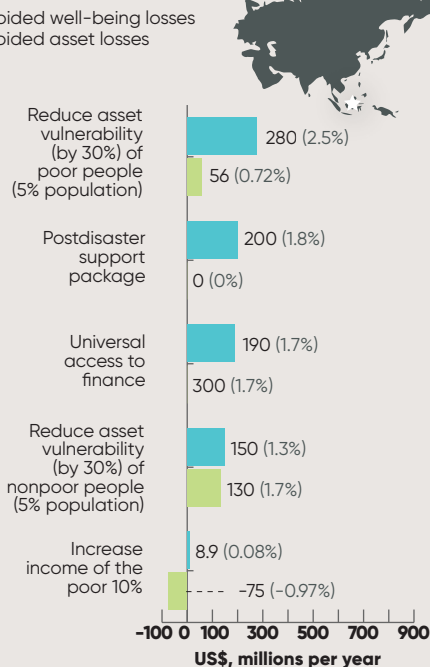
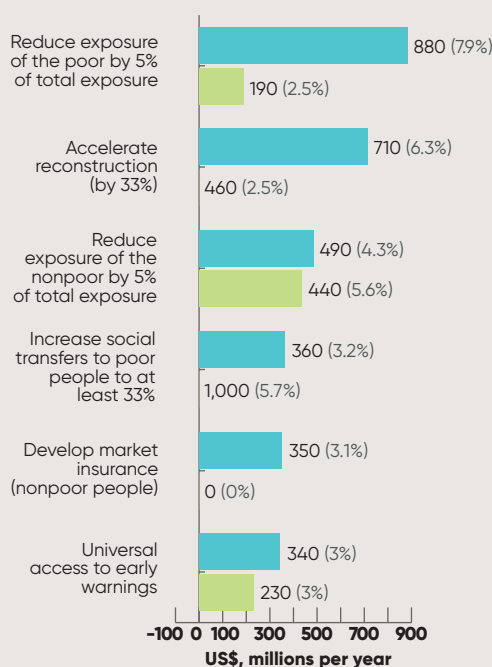
INDONESIA

Risk to assets: \$7,700 million (0.33% of GDP)

Socioeconomic resilience: 69%

Risk to well-being: \$11,000 million (0.49% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



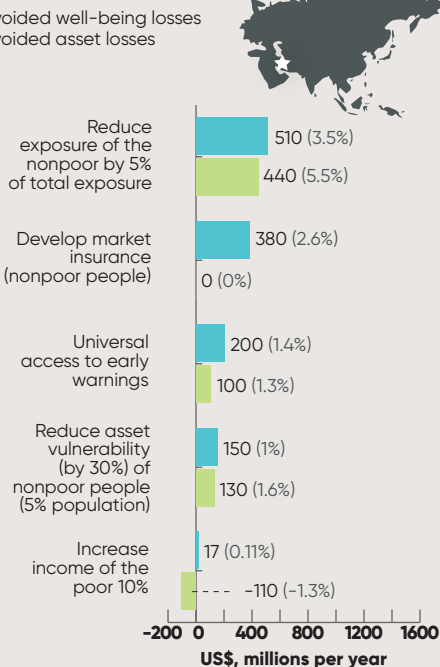
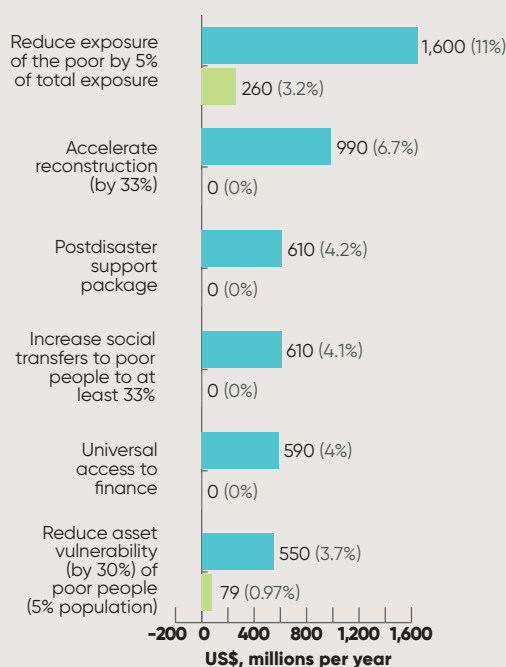
IRAN, ISLAMIC REP.

Risk to assets: \$8,100 million (0.7% of GDP)

Socioeconomic resilience: 55%

Risk to well-being: \$15,000 million (1.3% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



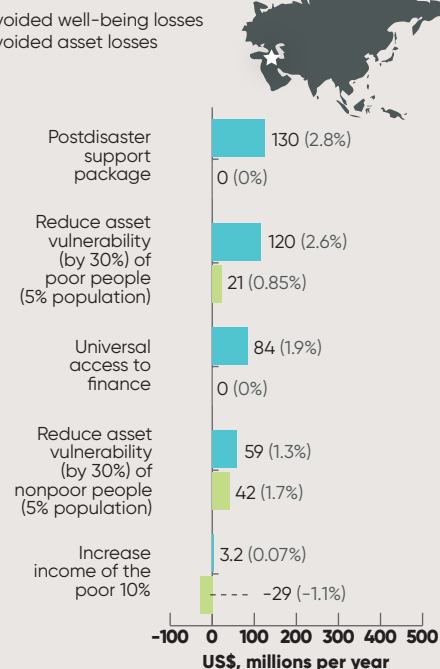
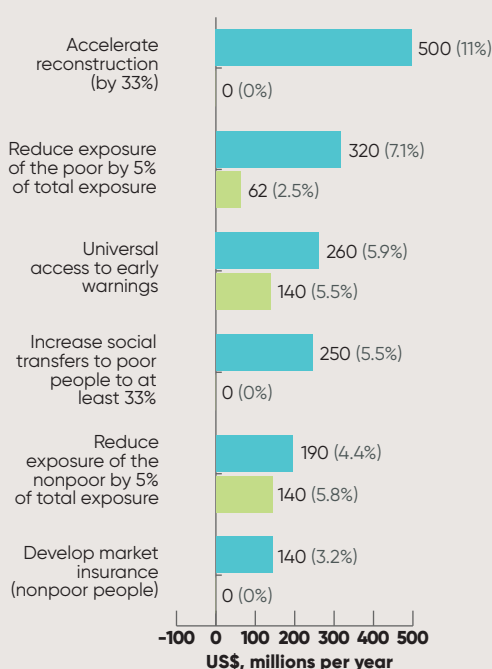
IRAQ

Risk to assets: \$2,500 million (0.52% of GDP)

Socioeconomic resilience: 56%

Risk to well-being: \$4,500 million (0.92% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



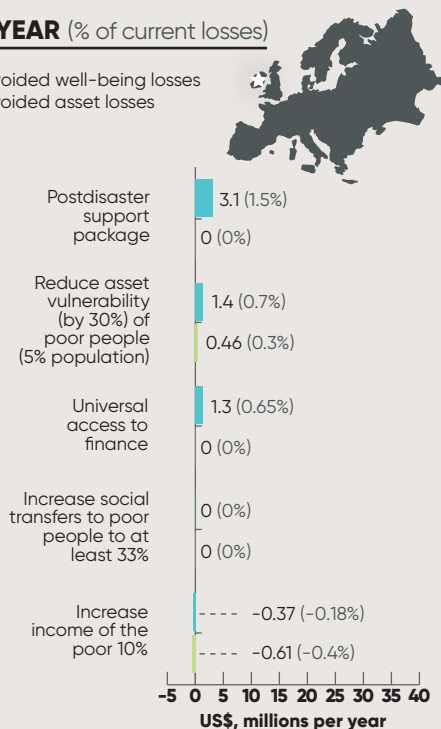
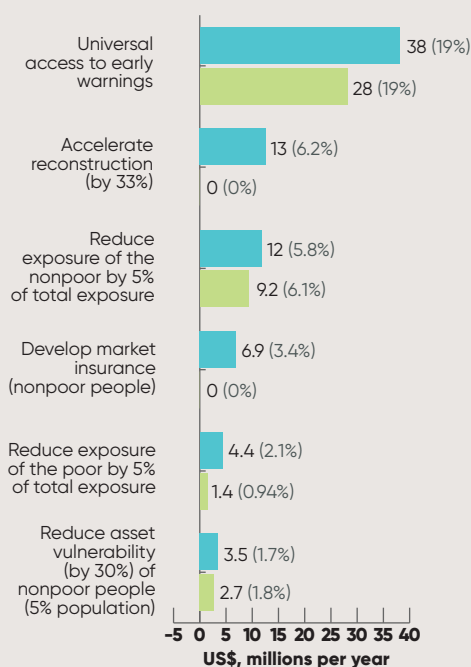
IRELAND

Risk to assets: \$150 million (0.07% of GDP)

Socioeconomic resilience: 74%

Risk to well-being: \$200 million (0.1% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



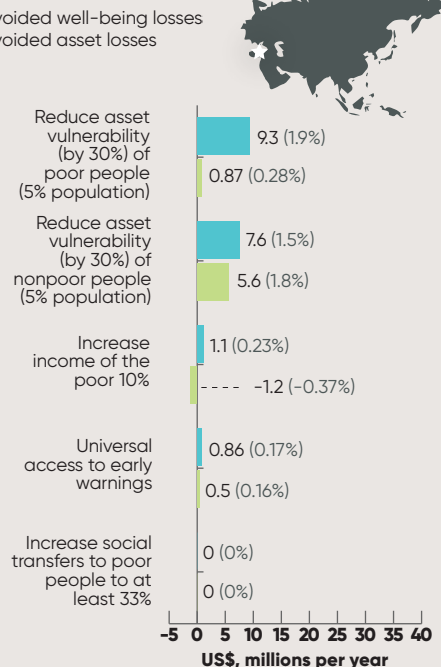
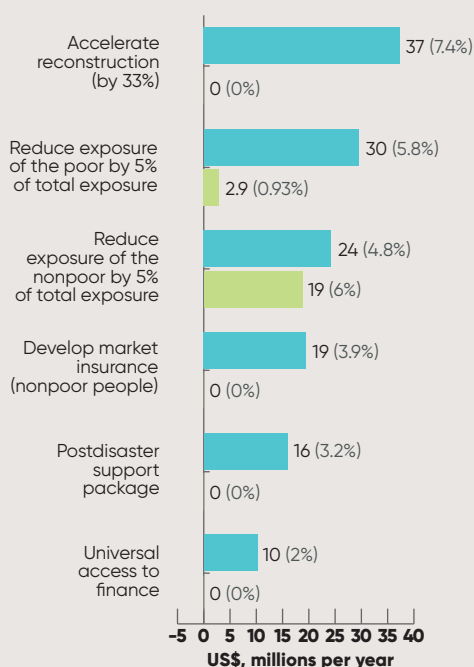
ISRAEL

Risk to assets: \$310 million (0.13% of GDP)

Socioeconomic resilience: 62%

Risk to well-being: \$500 million (0.2% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



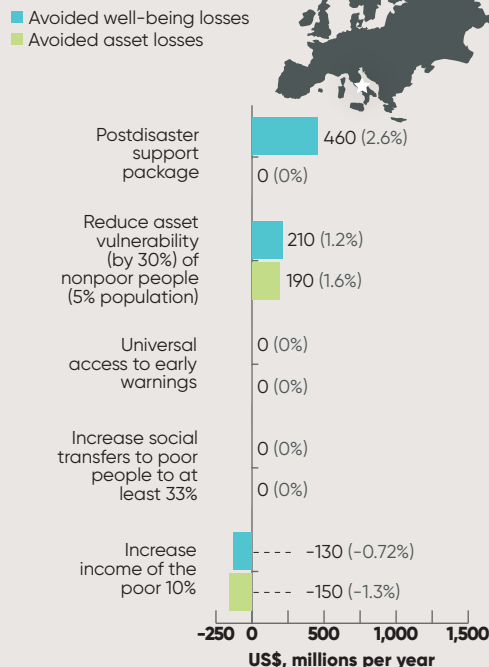
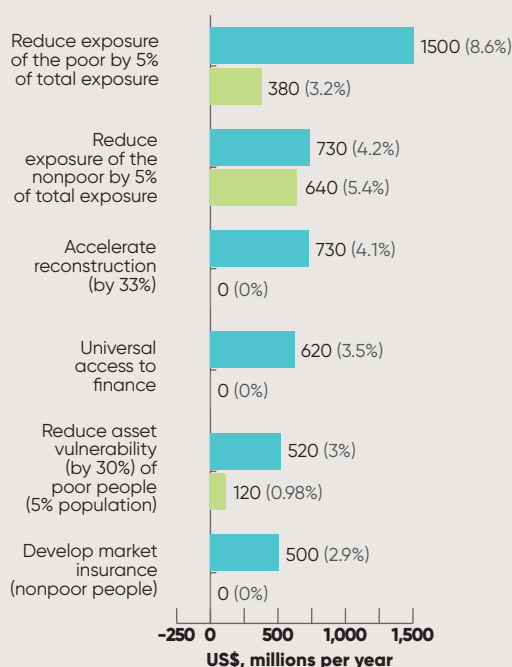
ITALY

Risk to assets: \$12,000 million (0.58% of GDP)

Socioeconomic resilience: 67%

Risk to well-being: \$18,000 million (0.86% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



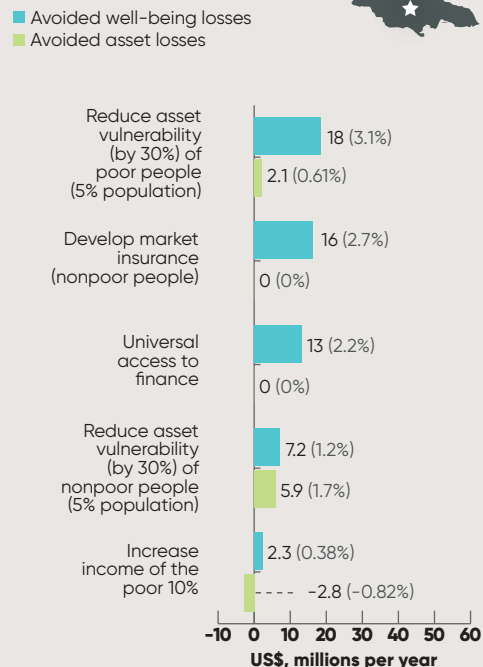
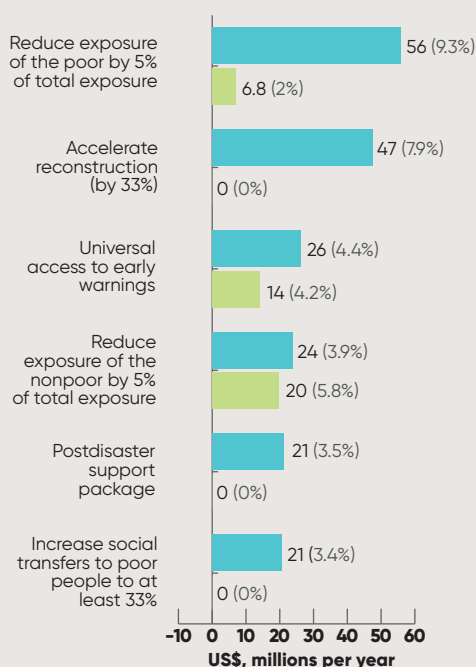
JAMAICA

Risk to assets: \$340 million (1.5% of GDP)

Socioeconomic resilience: 57%

Risk to well-being: \$600 million (2.6% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



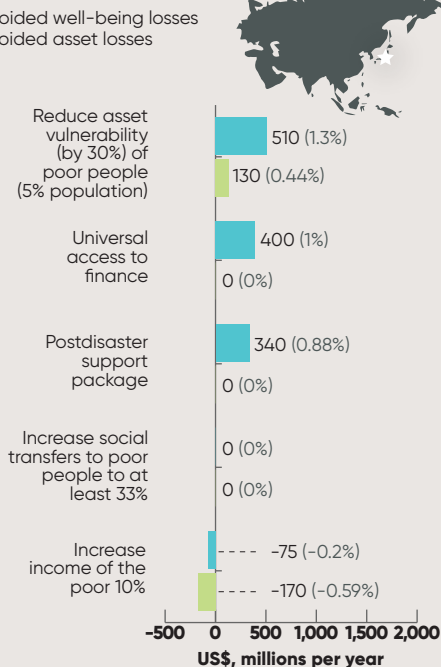
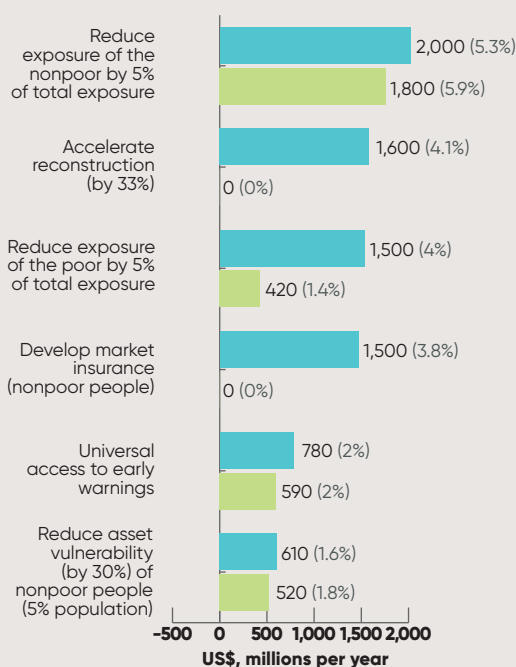
JAPAN

Risk to assets: \$30,000 million (0.65% of GDP)

Socioeconomic resilience: 78%

Risk to well-being: \$38,000 million (0.84% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



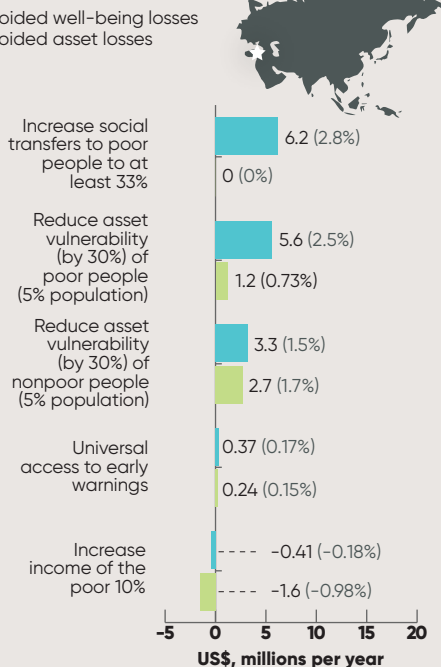
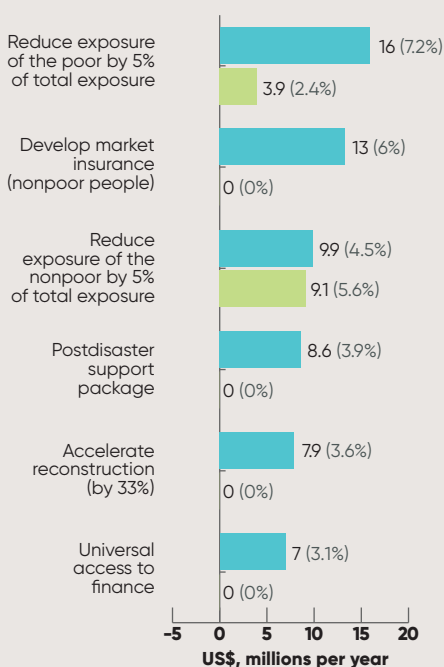
JORDAN

Risk to assets: \$160 million (0.22% of GDP)

Socioeconomic resilience: 73%

Risk to well-being: \$220 million (0.3% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



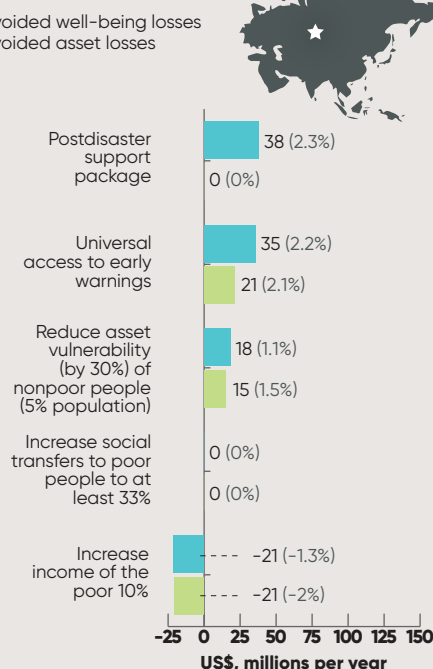
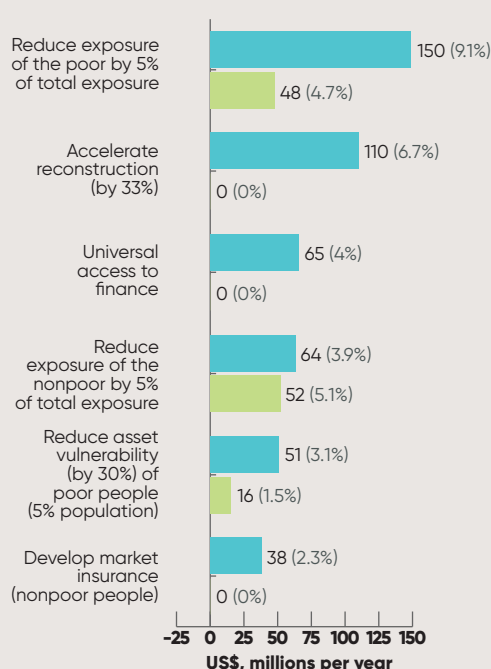
KAZAKHSTAN

Risk to assets: \$1,000 million (0.27% of GDP)

Socioeconomic resilience: 62%

Risk to well-being: \$1,600 million (0.43% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



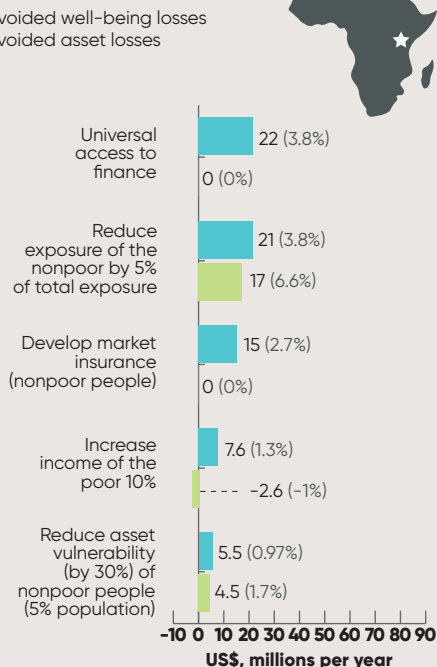
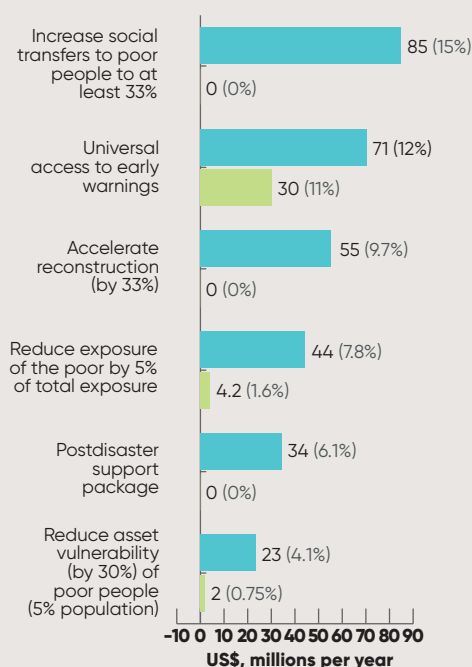
KENYA

Risk to assets: \$260 million (0.22% of GDP)

Socioeconomic resilience: 46%

Risk to well-being: \$570 million (0.47% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



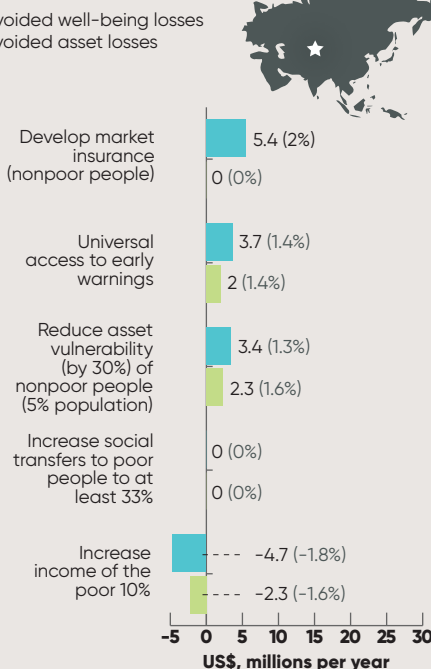
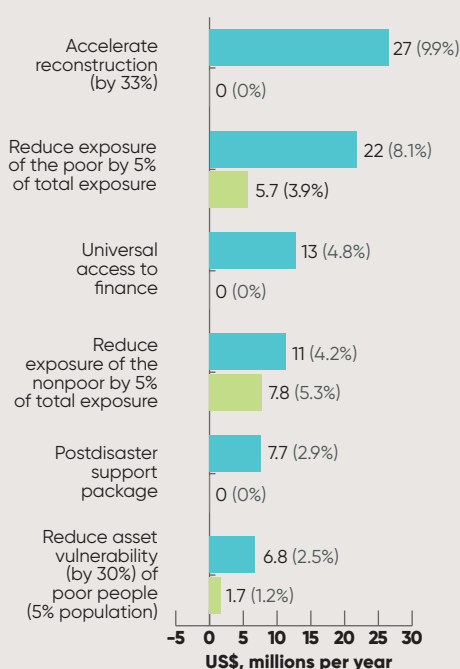
KYRGYZ REPUBLIC

Risk to assets: \$150 million (0.83% of GDP)

Socioeconomic resilience: 55%

Risk to well-being: \$270 million (1.5% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



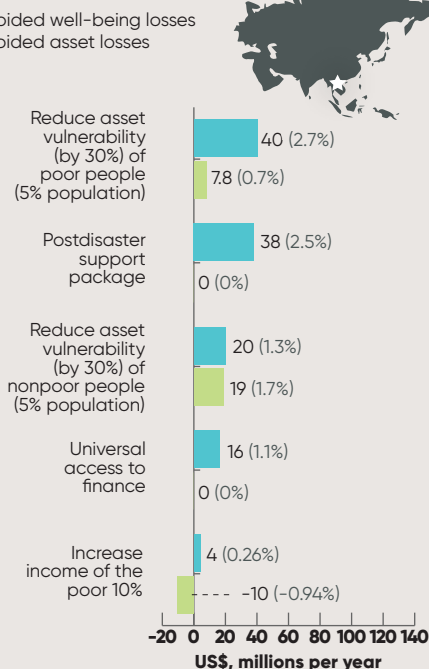
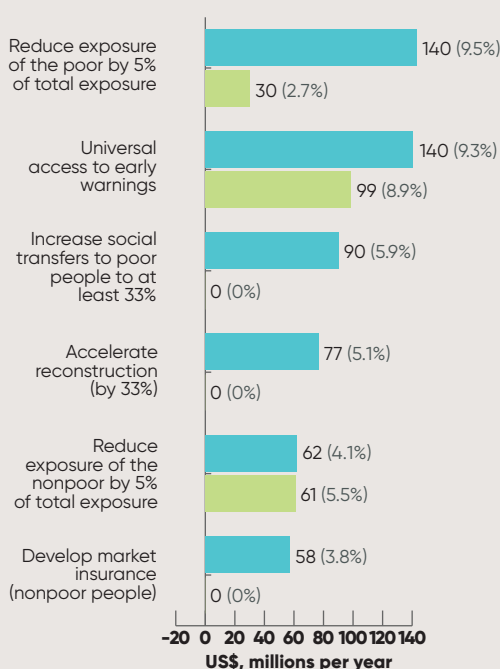
LAO PDR

Risk to assets: \$1,100 million (3.5% of GDP)

Socioeconomic resilience: 73%

Risk to well-being: \$1,500 million (4.8% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



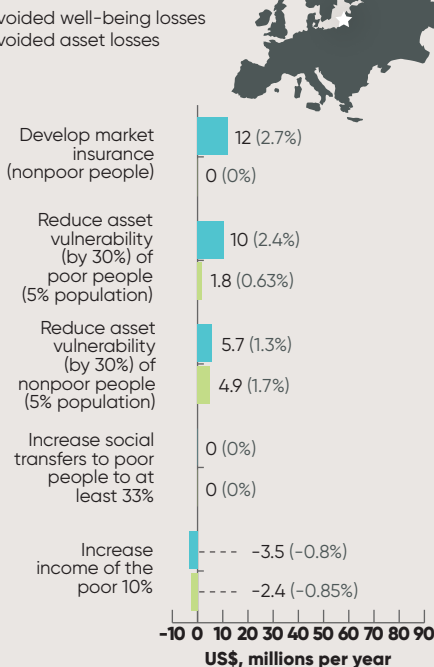
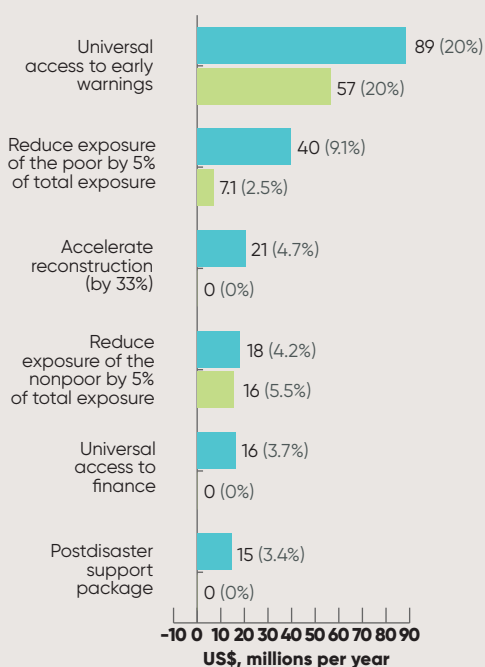
LATVIA

Risk to assets: \$280 million (0.64% of GDP)

Socioeconomic resilience: 65%

Risk to well-being: \$440 million (0.99% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



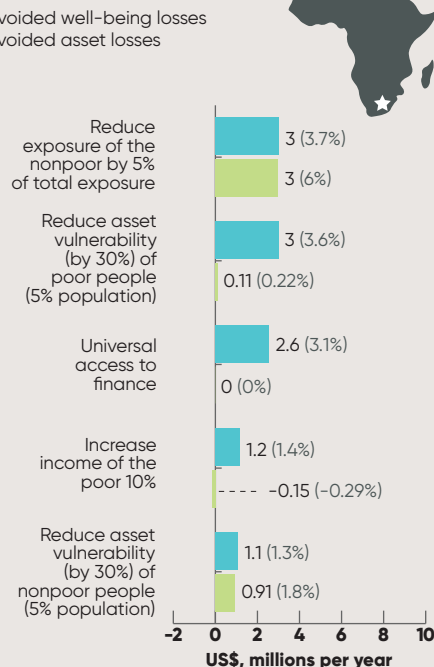
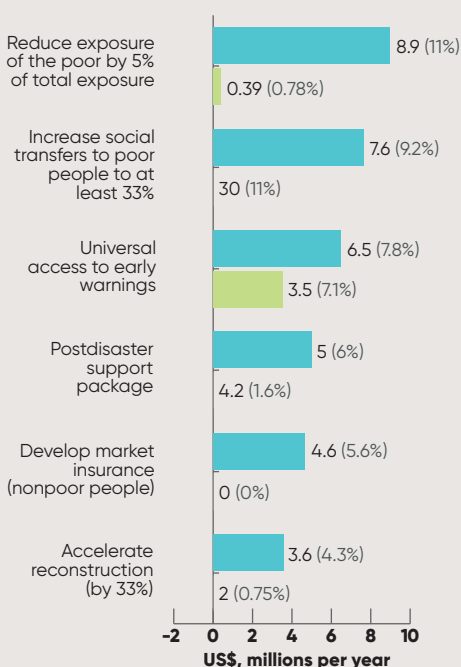
LESOTHO

Risk to assets: \$50 million (0.9% of GDP)

Socioeconomic resilience: 60%

Risk to well-being: \$83 million (1.6% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



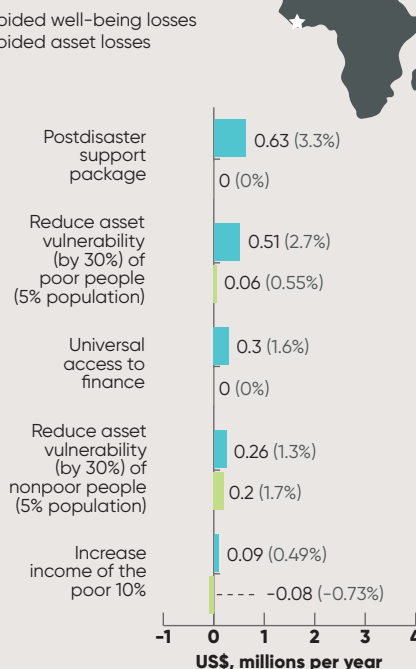
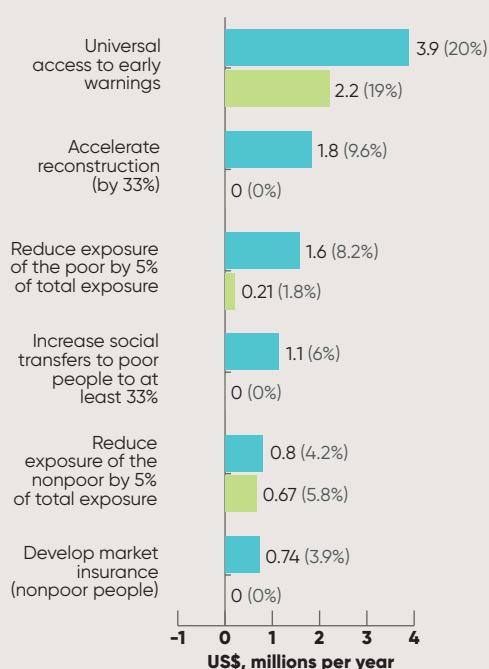
LIBERIA

Risk to assets: \$11 million (0.31% of GDP)

Socioeconomic resilience: 60%

Risk to well-being: \$19 million (0.52% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



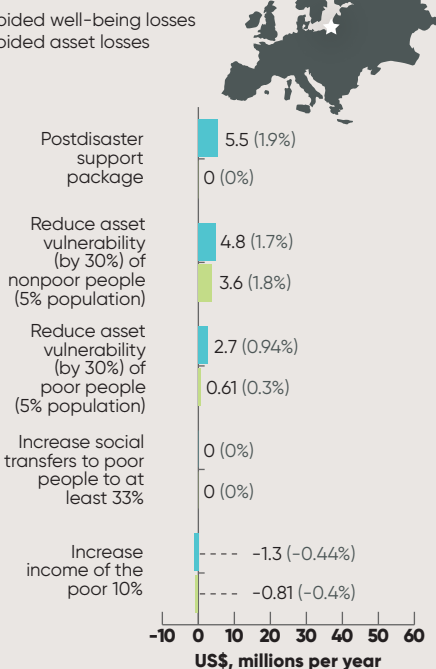
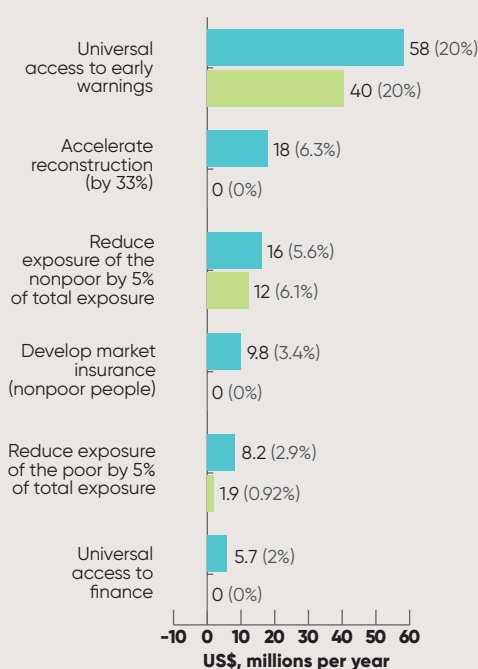
LITHUANIA

Risk to assets: \$200 million (0.28% of GDP)

Socioeconomic resilience: 70%

Risk to well-being: \$290 million (0.4% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



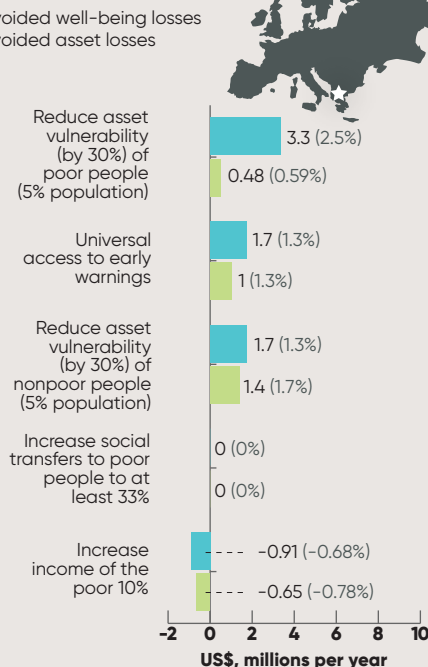
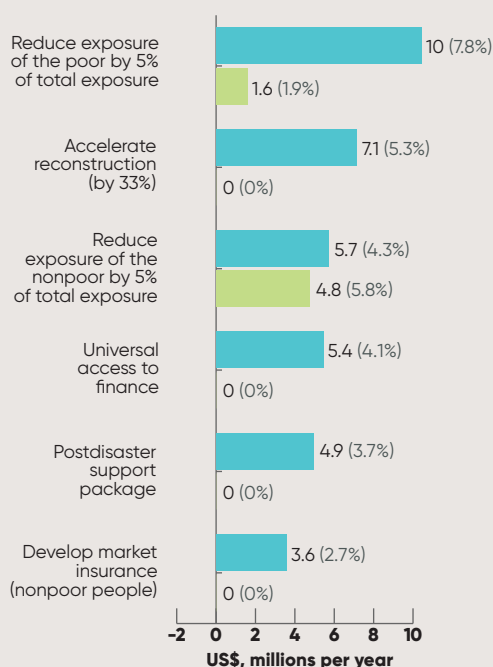
MACEDONIA, FYR

Risk to assets: \$83 million (0.34% of GDP)

Socioeconomic resilience: 62%

Risk to well-being: \$130 million (0.55% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



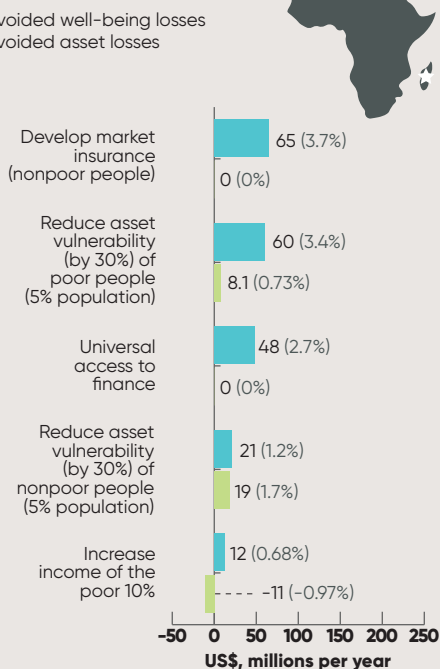
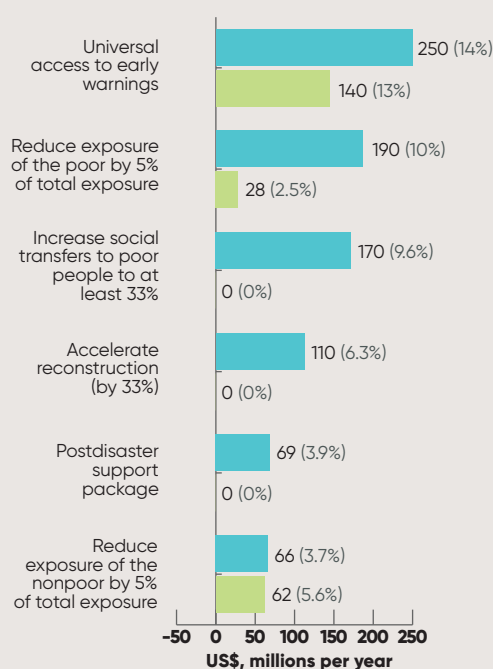
MADAGASCAR

Risk to assets: \$1,100 million (3.5% of GDP)

Socioeconomic resilience: 62%

Risk to well-being: \$1,800 million (5.7% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



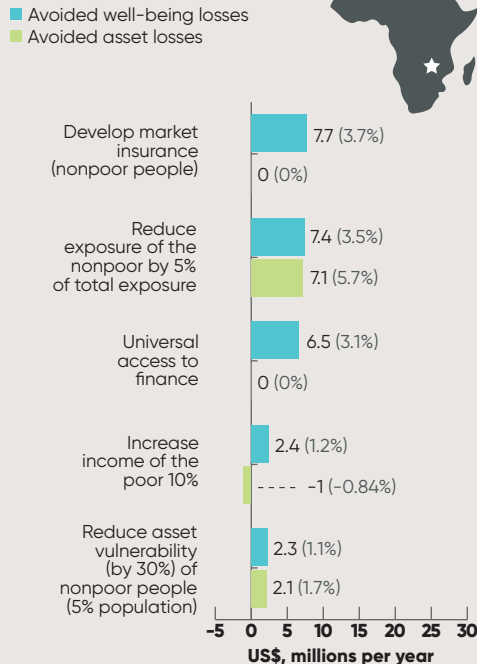
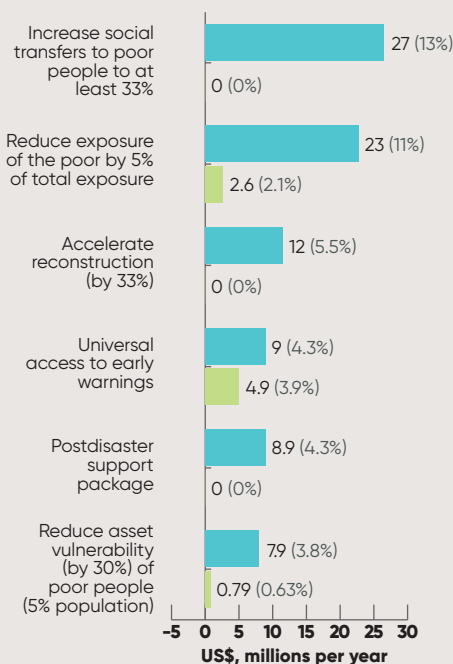
MALAWI

Risk to assets: \$120 million (1.0% of GDP)

Socioeconomic resilience: 60%

Risk to well-being: \$210 million (1.7% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



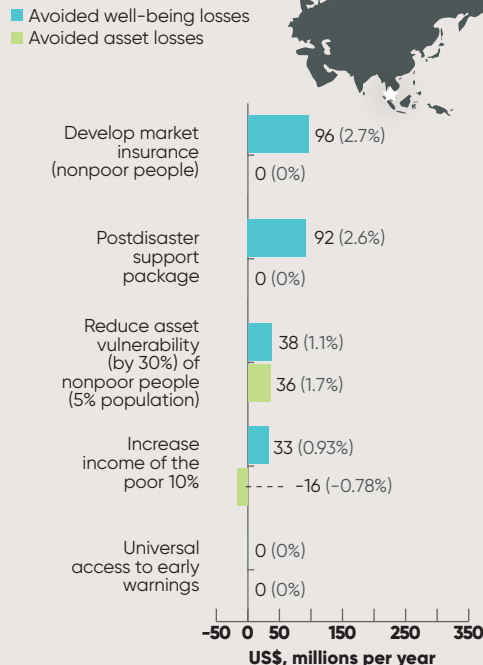
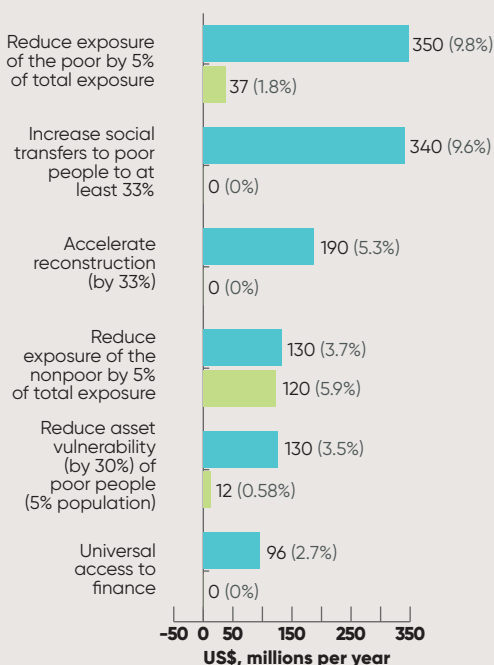
MALAYSIA

Risk to assets: \$2,100 million (0.31% of GDP)

Socioeconomic resilience: 59%

Risk to well-being: \$3,600 million (0.53% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



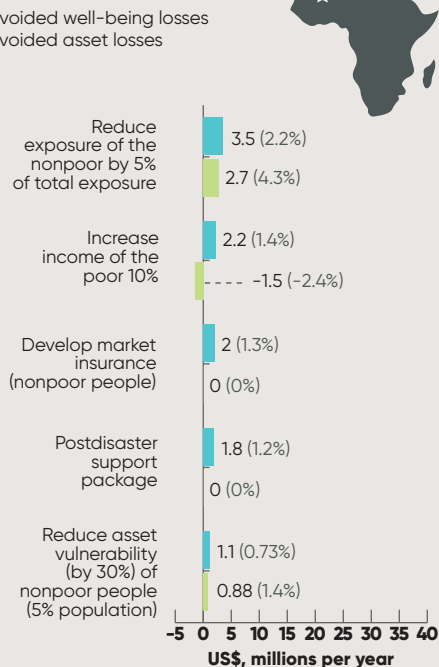
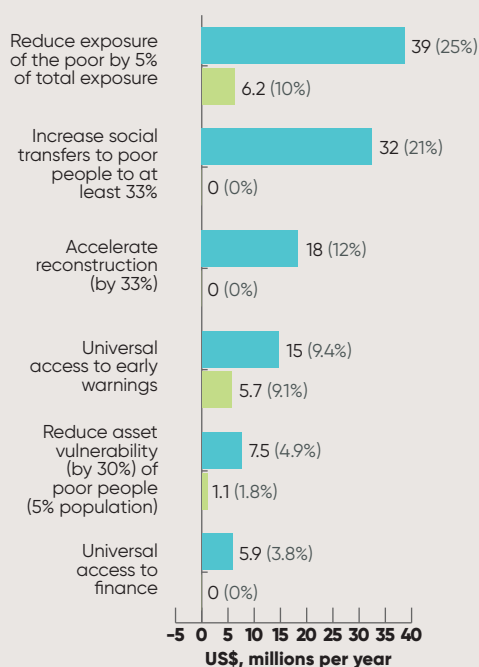
MALI

Risk to assets: \$62 million (0.26% of GDP)

Socioeconomic resilience: 40%

Risk to well-being: \$160 million (0.64% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



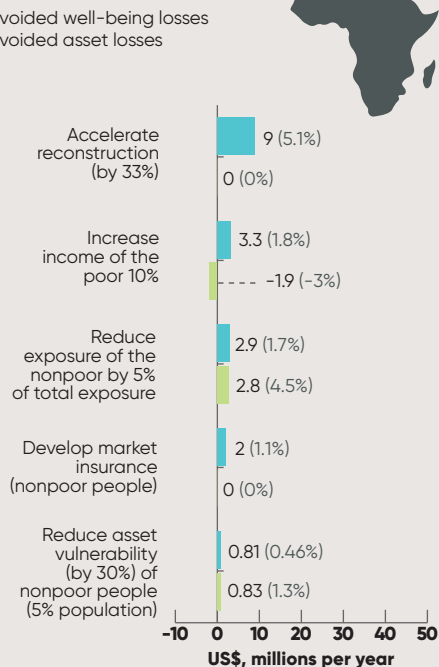
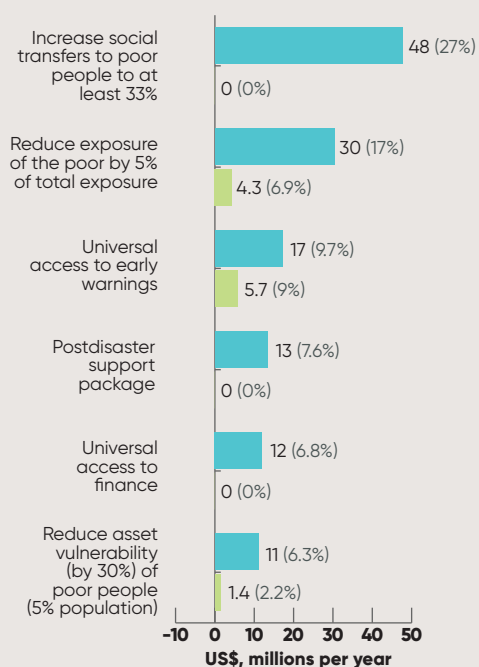
MAURITANIA

Risk to assets: \$63 million (0.55% of GDP)

Socioeconomic resilience: 36%

Risk to well-being: \$180 million (1.5% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



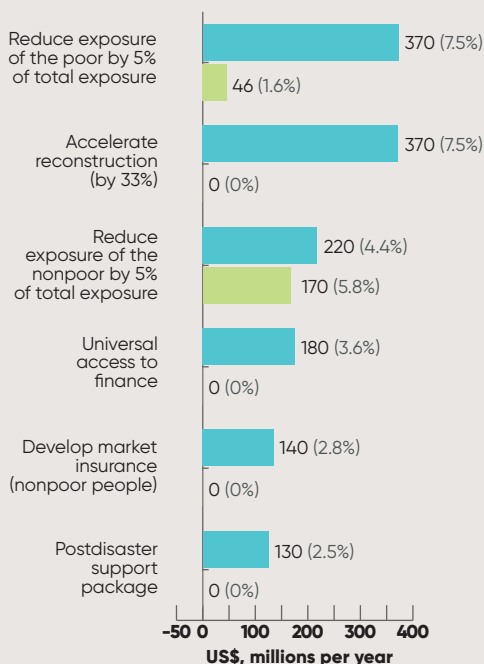
MEXICO

Risk to assets: \$2,900 million (0.14% of GDP)

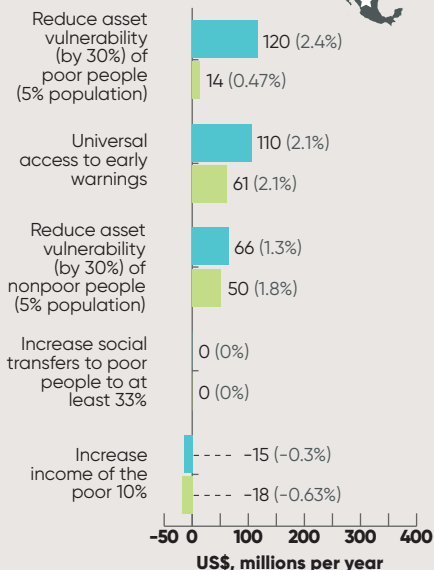
Socioeconomic resilience: 58%

Risk to well-being: \$4,900 million (0.25% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



■ Avoided well-being losses
■ Avoided asset losses



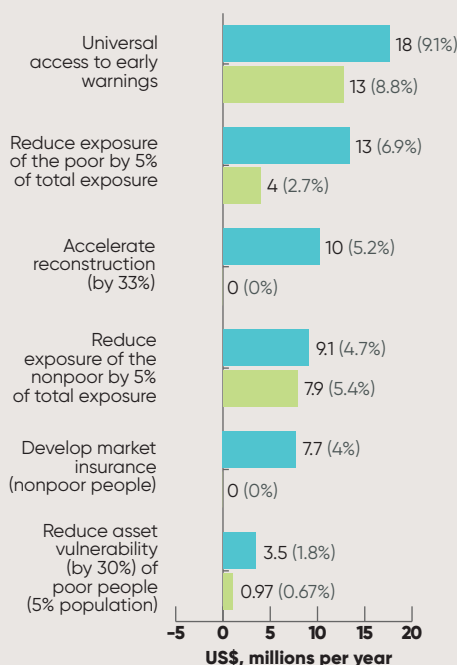
MOLDOVA

Risk to assets: \$150 million (0.9% of GDP)

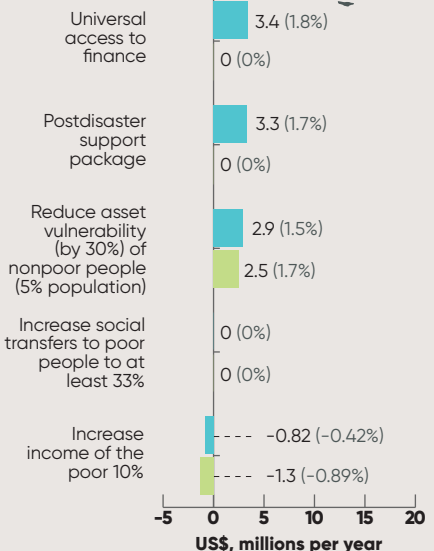
Socioeconomic resilience: 75%

Risk to well-being: \$190 million (1.2% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



■ Avoided well-being losses
■ Avoided asset losses



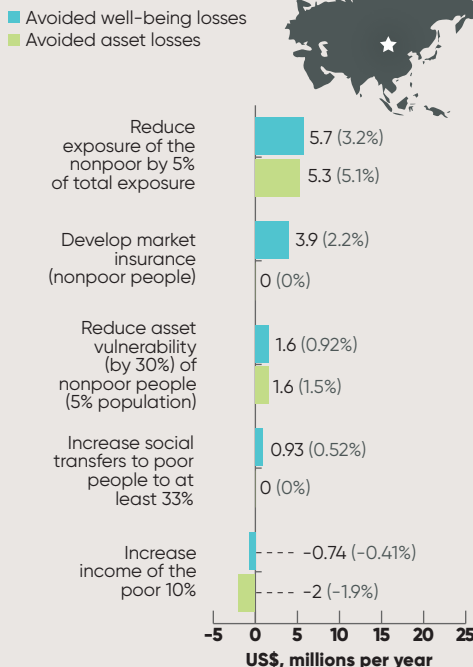
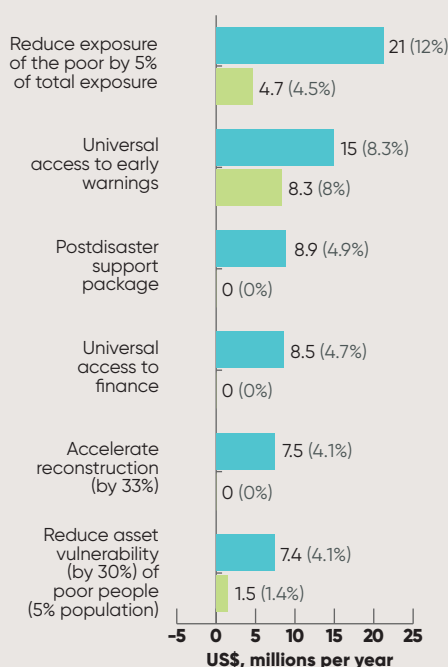
MONGOLIA

Risk to assets: \$100 million (0.4% of GDP)

Socioeconomic resilience: 57%

Risk to well-being: \$180 million (0.69% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



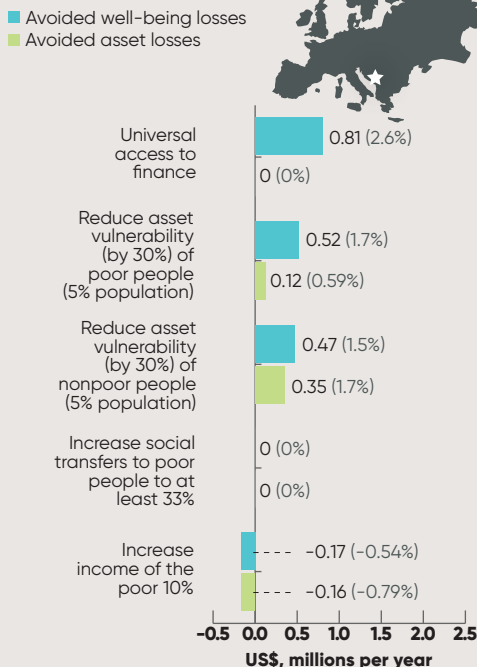
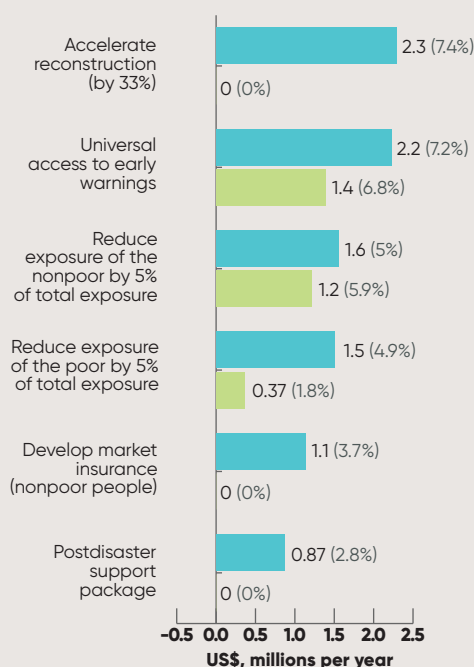
MONTENEGRO

Risk to assets: \$20 million (0.23% of GDP)

Socioeconomic resilience: 66%

Risk to well-being: \$31 million (0.35% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



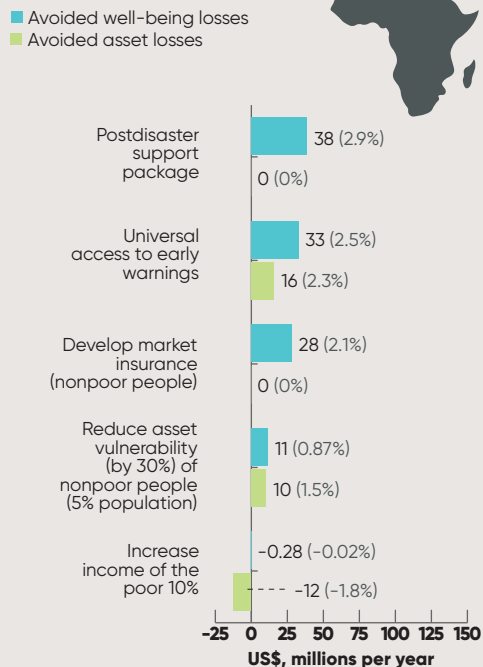
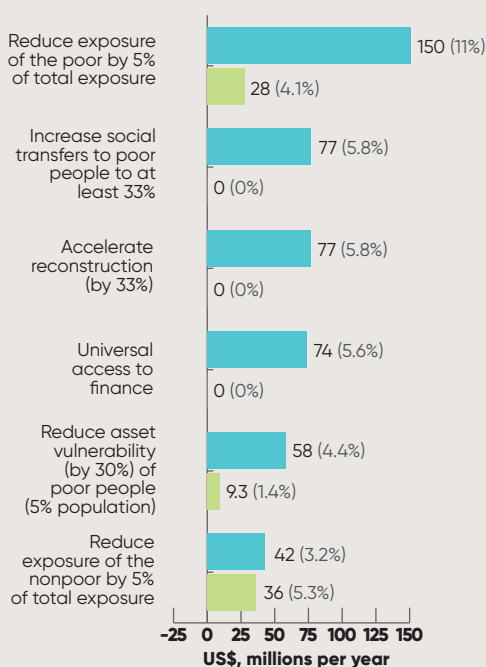
MOROCCO

Risk to assets: \$680 million (0.3% of GDP)

Socioeconomic resilience: 52%

Risk to well-being: \$1,300 million (0.57% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



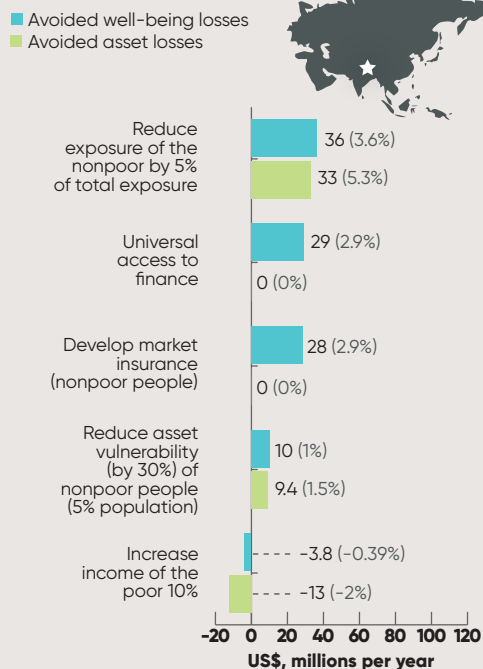
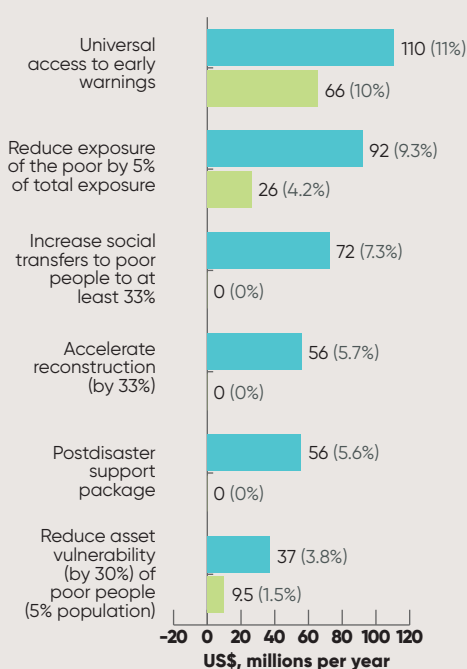
NEPAL

Risk to assets: \$630 million (1.0% of GDP)

Socioeconomic resilience: 63%

Risk to well-being: \$990 million (1.6% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



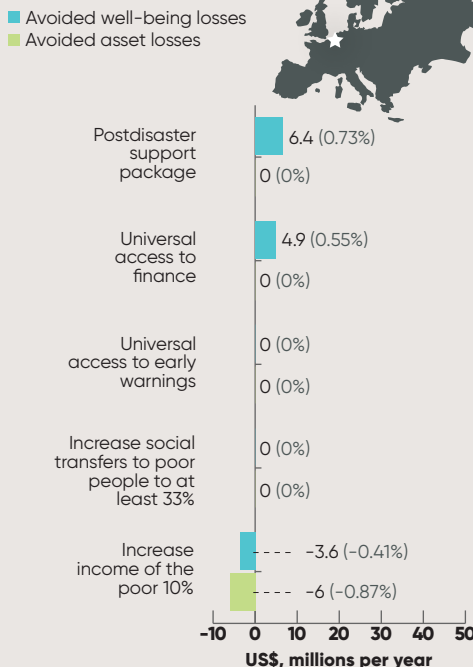
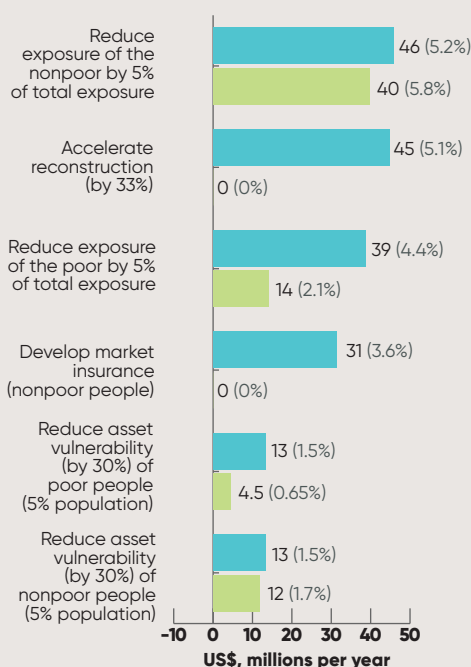
NETHERLANDS

Risk to assets: \$690 million (0.09% of GDP)

Socioeconomic resilience: 78%

Risk to well-being: \$880 million (0.12% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



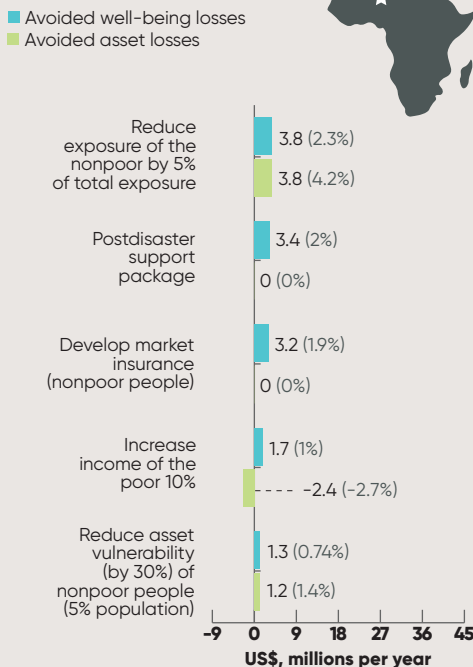
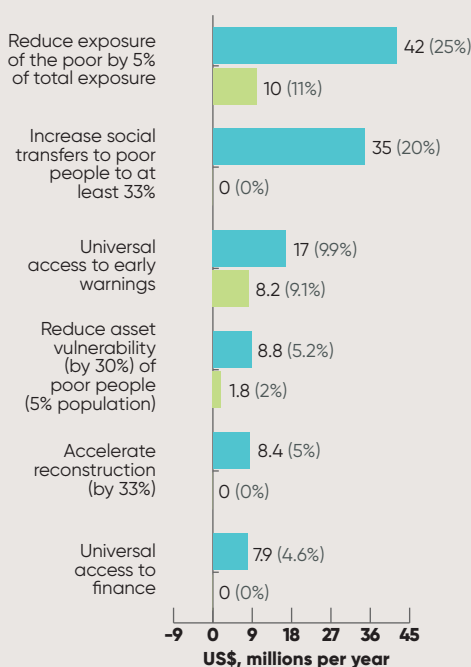
NIGER

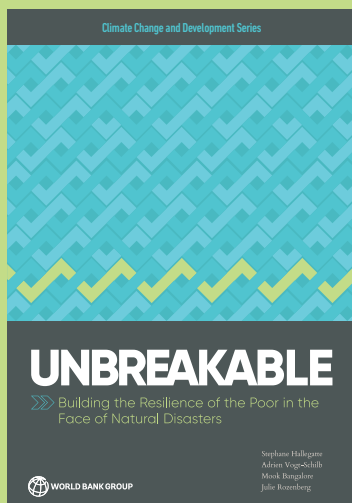
Risk to assets: \$91 million (0.57% of GDP)

Socioeconomic resilience: 54%

Risk to well-being: \$170 million (1.1% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)





UNBREAKABLE



See the full report, "Unbreakable: Building Resilience of the Poor in the Face of Natural Disasters" at www.gfdr.org/unbreakable



WORLD BANK GROUP



GFDRR
Global Facility for Disaster Reduction and Recovery



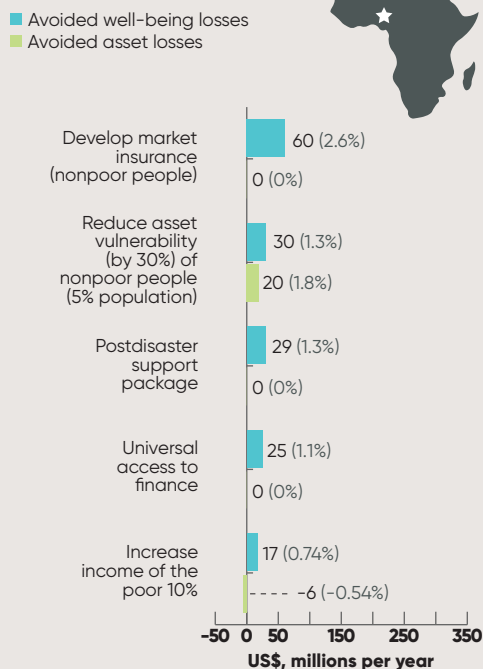
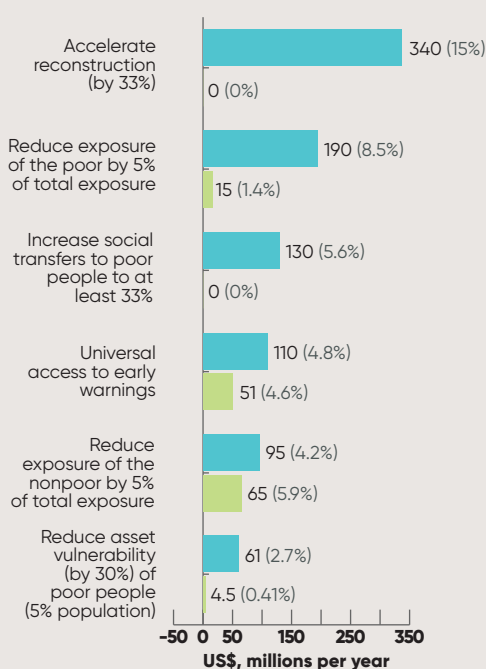
NIGERIA

Risk to assets: \$1,100 million (0.12% of GDP)

Socioeconomic resilience: 48%

Risk to well-being: \$2,300 million (0.24% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



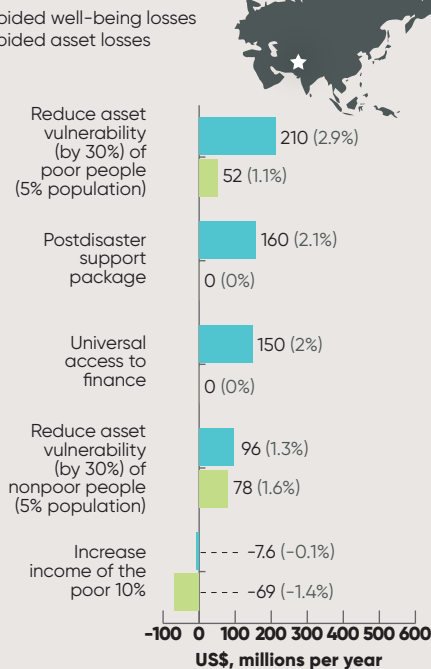
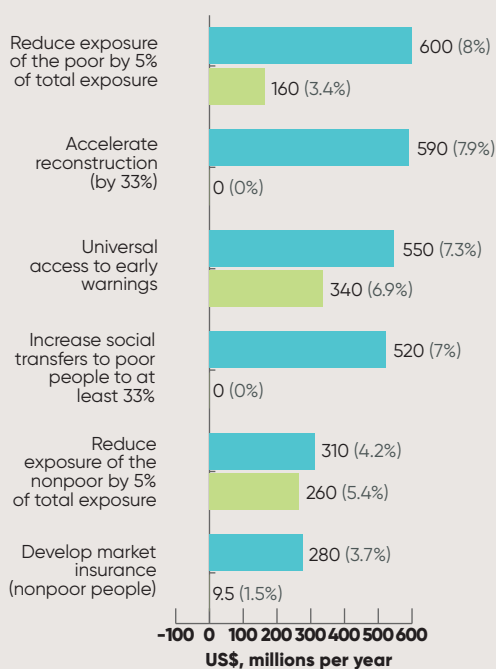
PAKISTAN

Risk to assets: \$4,900 million (0.6% of GDP)

Socioeconomic resilience: 65%

Risk to well-being: \$7,500 million (0.92% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



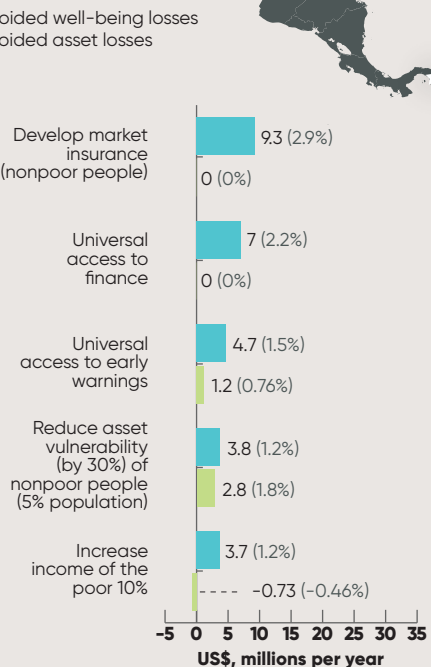
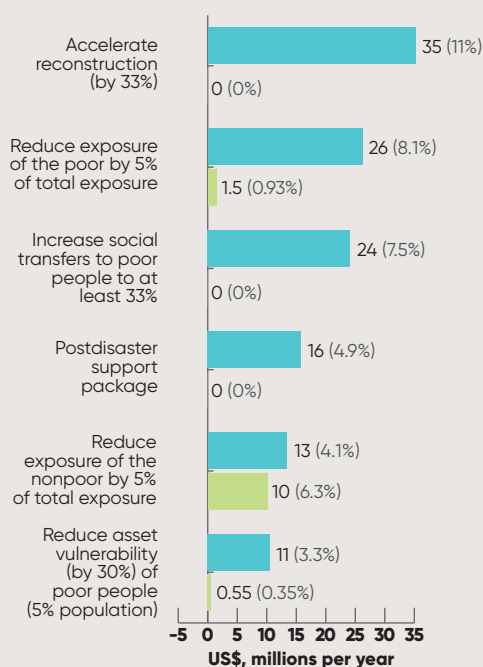
PANAMA

Risk to assets: \$160 million (0.22% of GDP)

Socioeconomic resilience: 49%

Risk to well-being: \$320 million (0.44% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



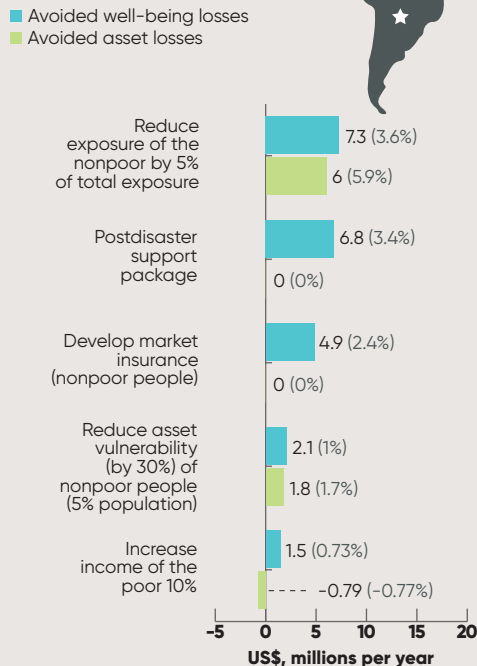
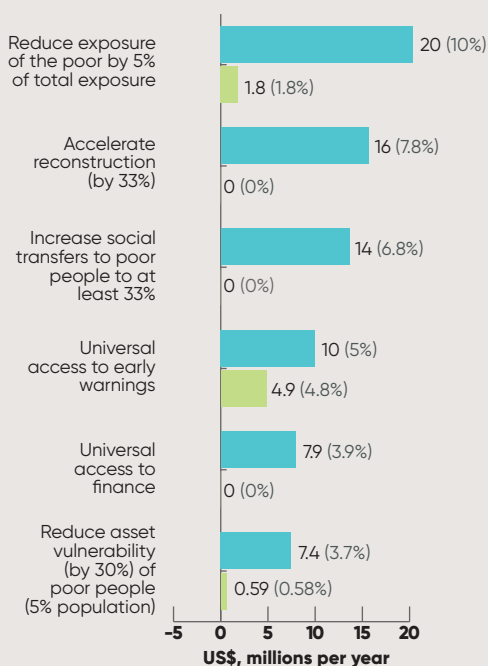
PARAGUAY

Risk to assets: \$100 million (0.19% of GDP)

Socioeconomic resilience: 51%

Risk to well-being: \$200 million (0.38% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



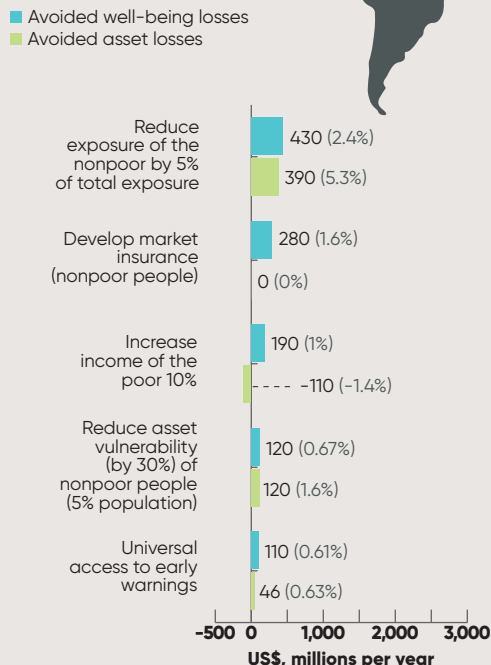
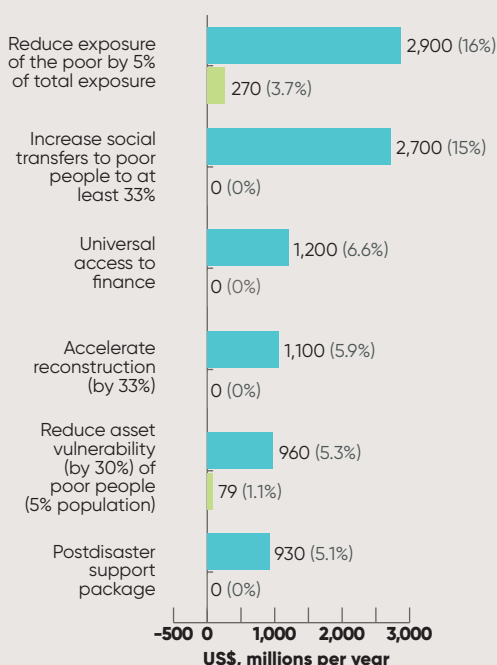
PERU

Risk to assets: \$7,300 million (2.1% of GDP)

Socioeconomic resilience: 40%

Risk to well-being: \$18,000 million (5.2% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



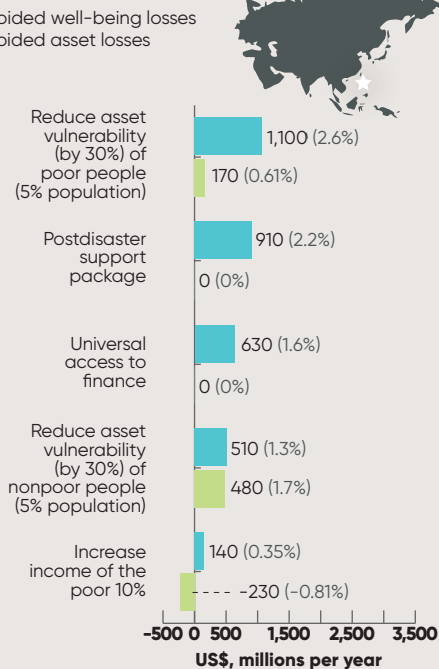
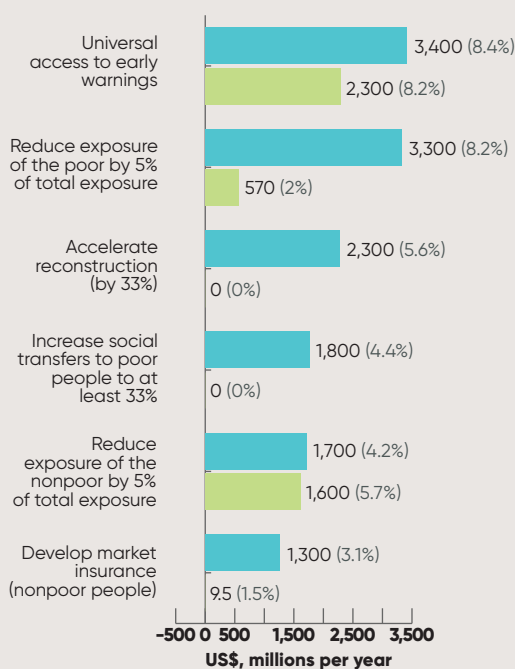
PHILIPPINES

Risk to assets: \$28,000 million (4.5% of GDP)

Socioeconomic resilience: 69%

Risk to well-being: \$41,000 million (6.5% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



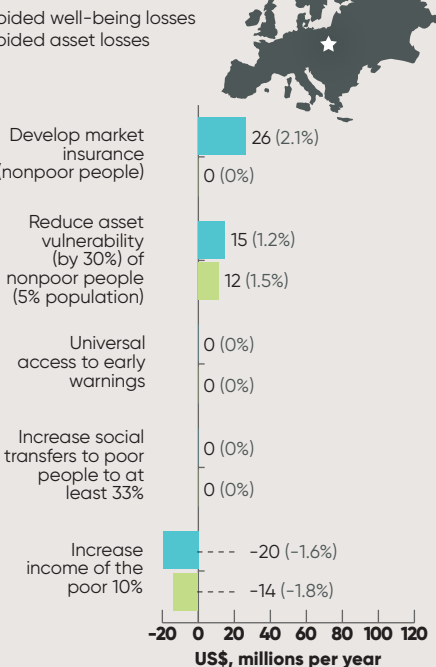
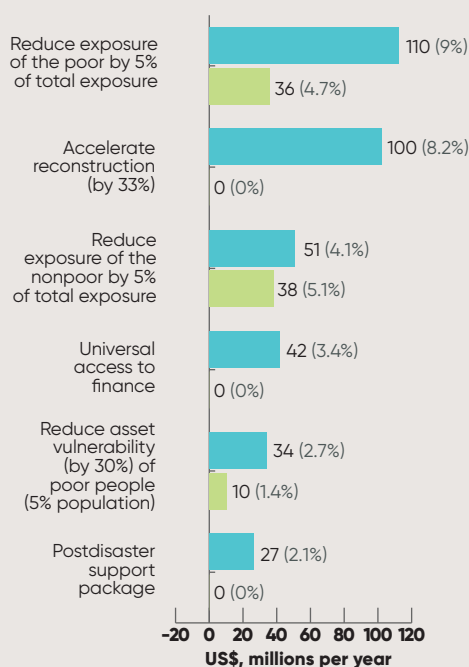
POLAND

Risk to assets: \$750 million (0.09% of GDP)

Socioeconomic resilience: 61%

Risk to well-being: \$1,200 million (0.14% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



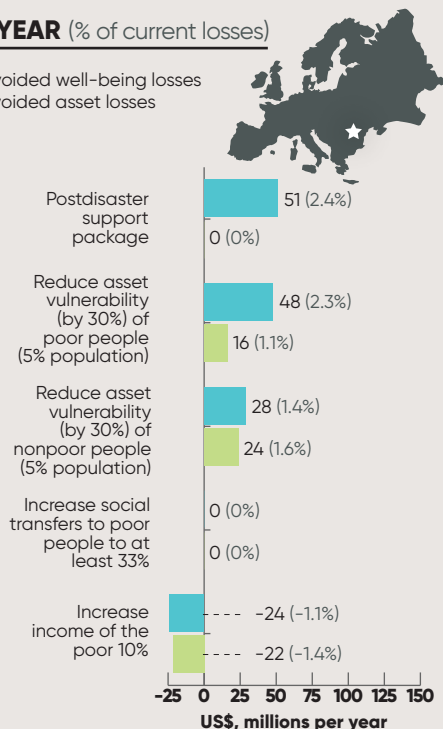
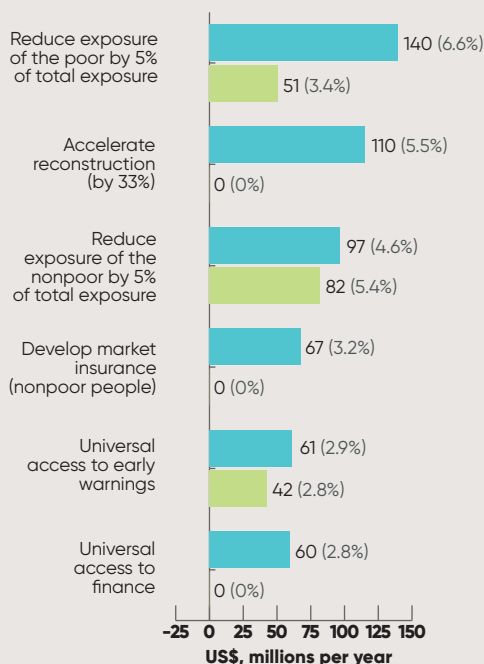
ROMANIA

Risk to assets: \$1,500 million (0.41% of GDP)

Socioeconomic resilience: 71%

Risk to well-being: \$2,100 million (0.58% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



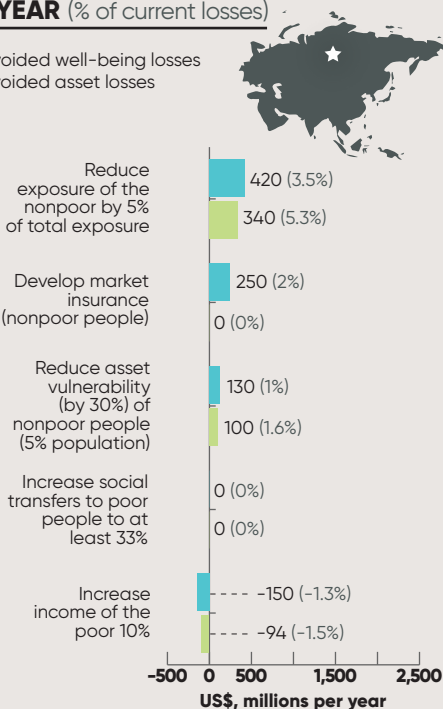
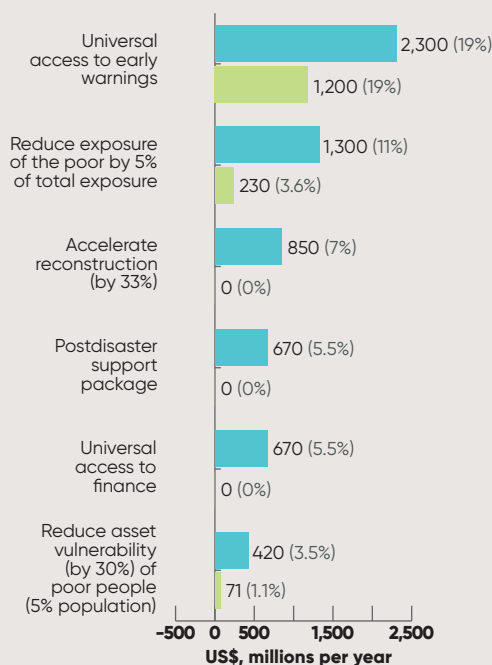
RUSSIAN FEDERATION

Risk to assets: \$6,300 million (0.19% of GDP)

Socioeconomic resilience: 52%

Risk to well-being: \$12,000 million (0.36% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



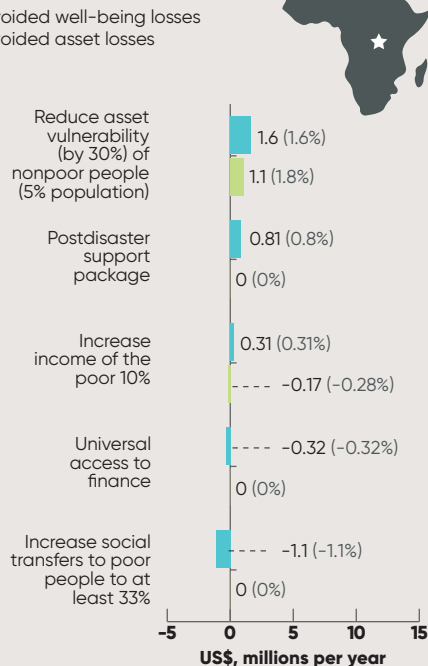
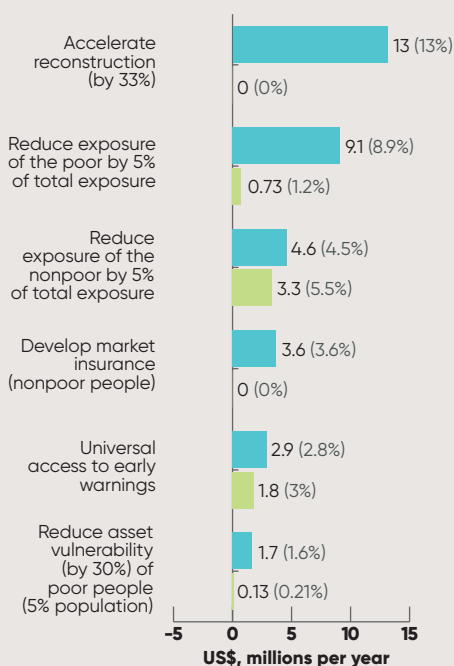
RWANDA

Risk to assets: \$61 million (0.36% of GDP)

Socioeconomic resilience: 60%

Risk to well-being: \$100 million (0.6% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



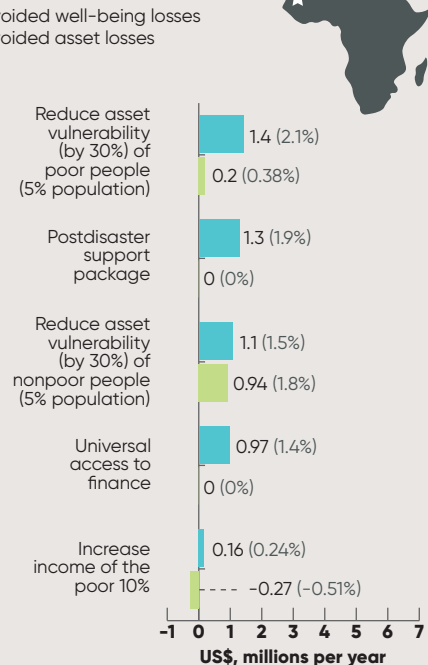
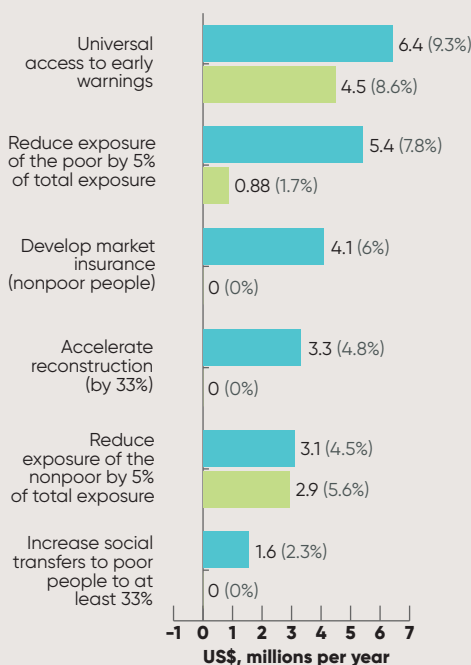
SENEGAL

Risk to assets: \$53 million (0.17% of GDP)

Socioeconomic resilience: 76%

Risk to well-being: \$69 million (0.22% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



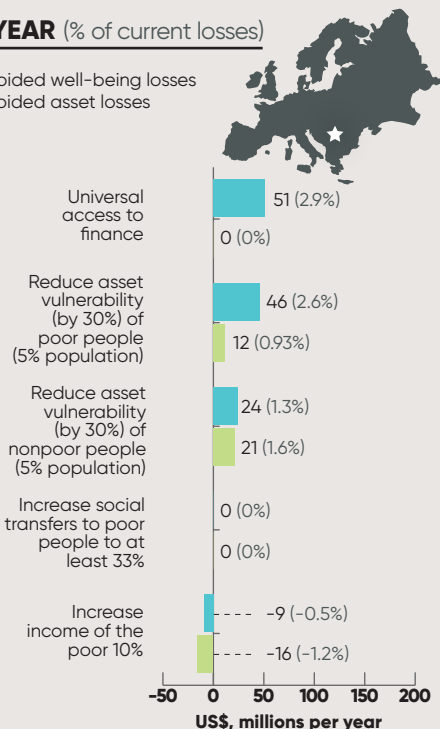
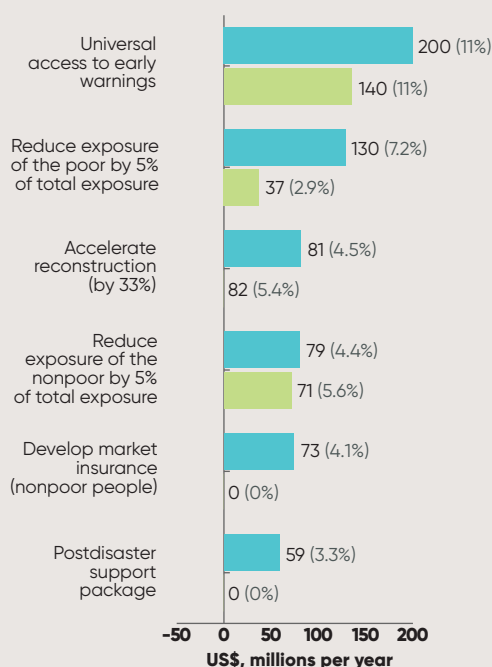
SERBIA

Risk to assets: \$1,300 million (1.4% of GDP)

Socioeconomic resilience: 72%

Risk to well-being: \$1,800 million (1.9% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



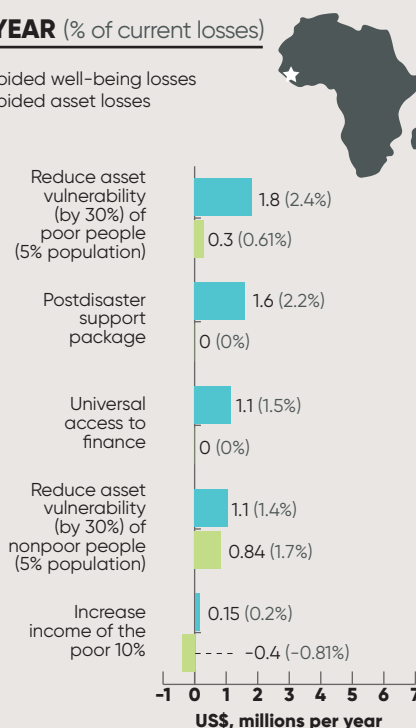
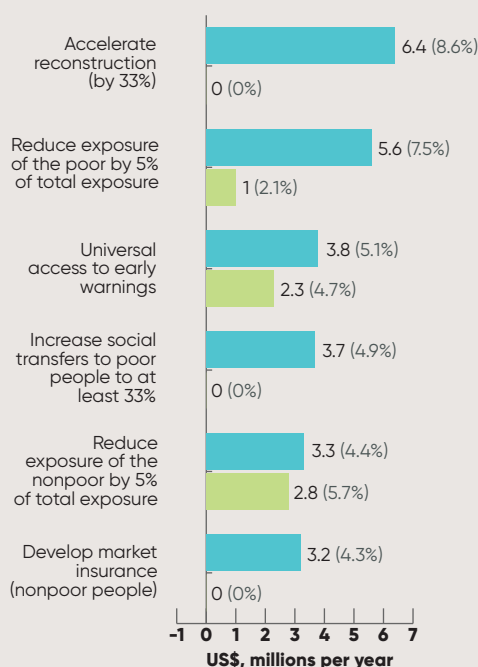
SIERRA LEONE

Risk to assets: \$49 million (0.53% of GDP)

Socioeconomic resilience: 65%

Risk to well-being: \$75 million (0.82% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



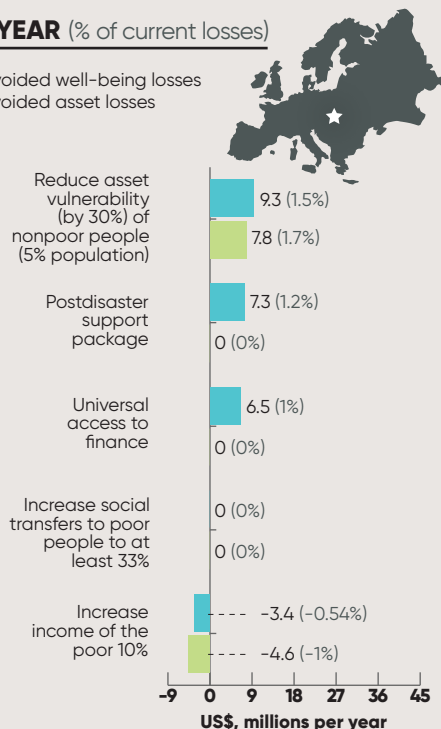
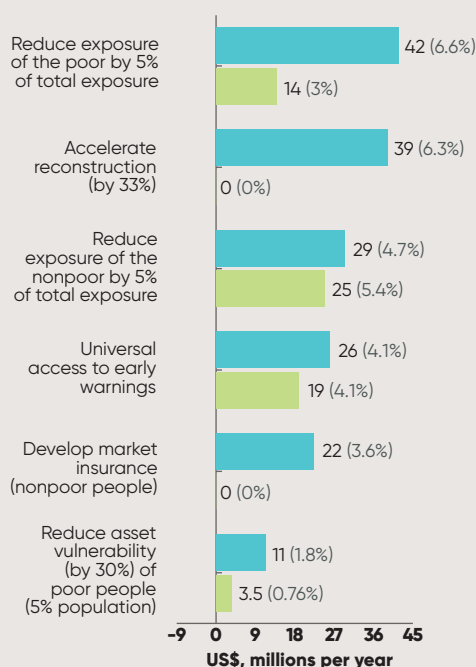
SLOVAK REPUBLIC

Risk to assets: \$460 million (0.33% of GDP)

Socioeconomic resilience: 73%

Risk to well-being: \$630 million (0.45% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



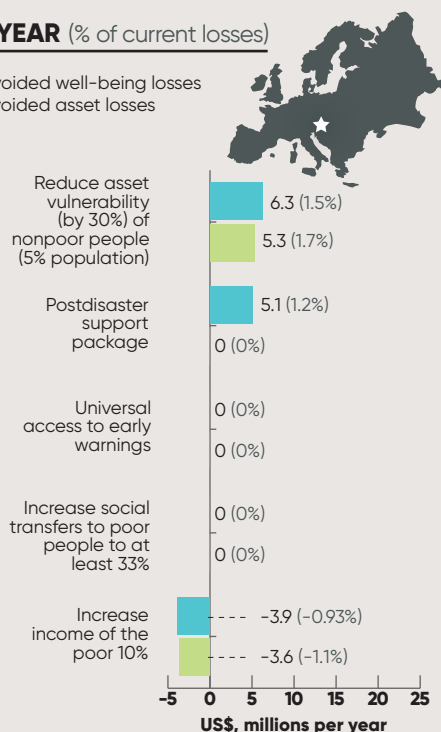
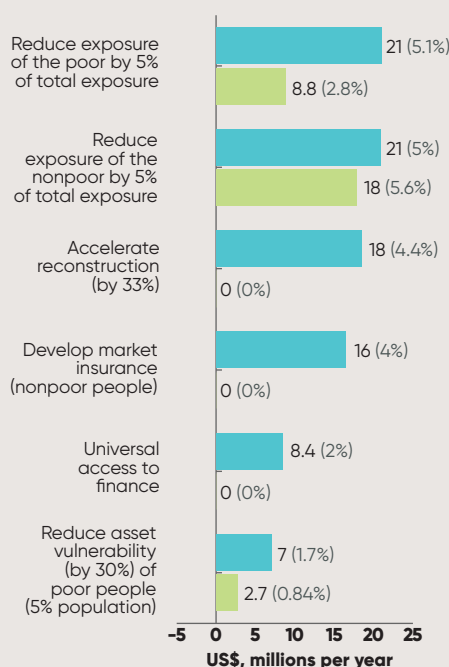
SLOVENIA

Risk to assets: \$320 million (0.57% of GDP)

Socioeconomic resilience: 77%

Risk to well-being: \$420 million (0.74% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



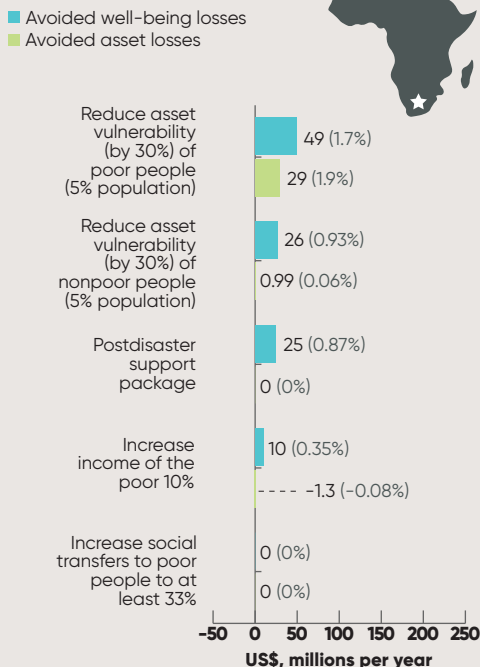
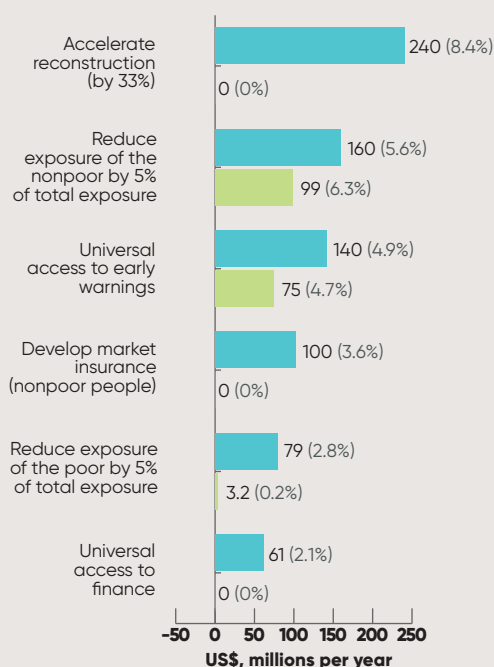
SOUTH AFRICA

Risk to assets: \$1,600 million (0.24% of GDP)

Socioeconomic resilience: 55%

Risk to well-being: \$2,900 million (0.43% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



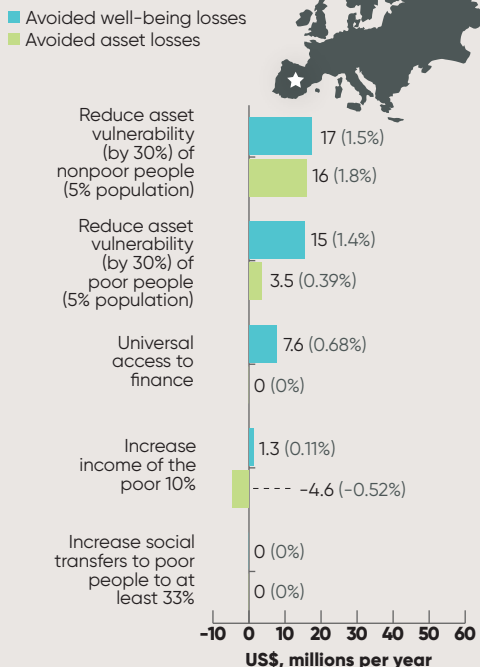
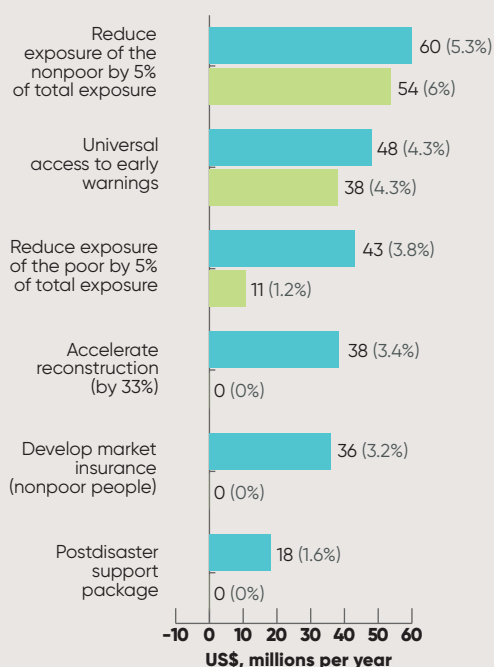
SPAIN

Risk to assets: \$890 million (0.06% of GDP)

Socioeconomic resilience: 79%

Risk to well-being: \$1,100 million (0.08% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



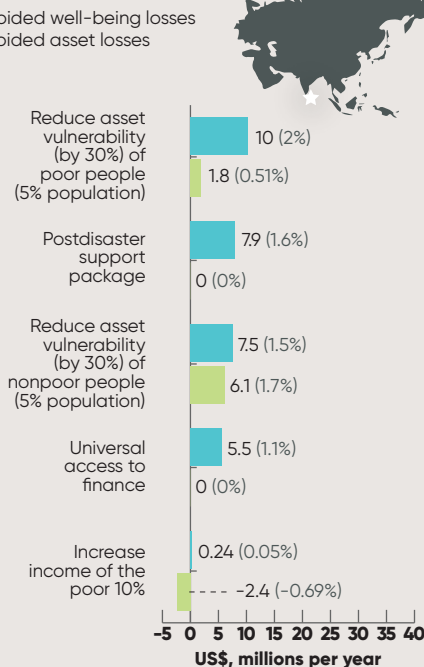
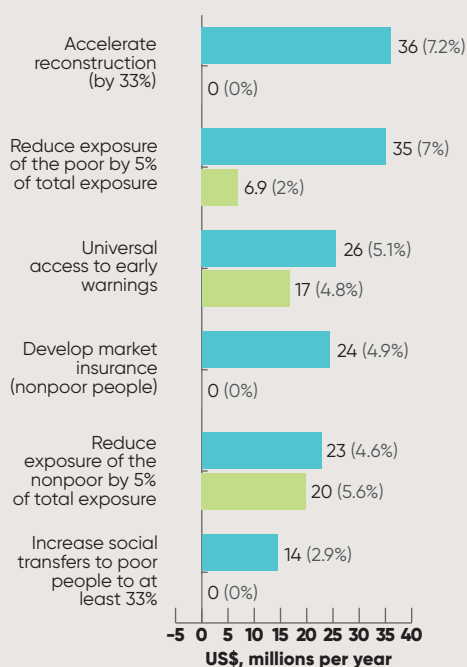
SRI LANKA

Risk to assets: \$350 million (0.18% of GDP)

Socioeconomic resilience: 71%

Risk to well-being: \$500 million (0.26% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



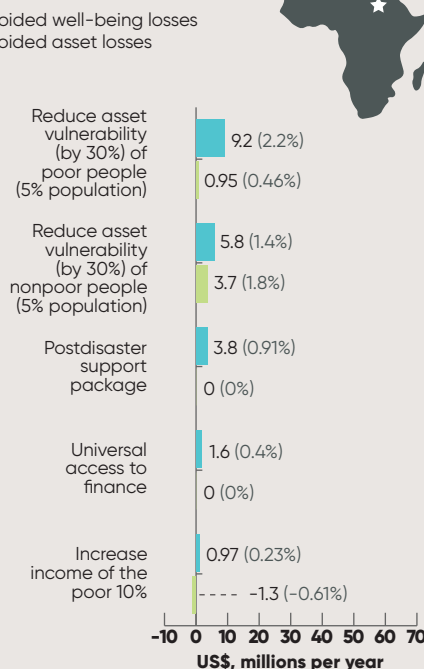
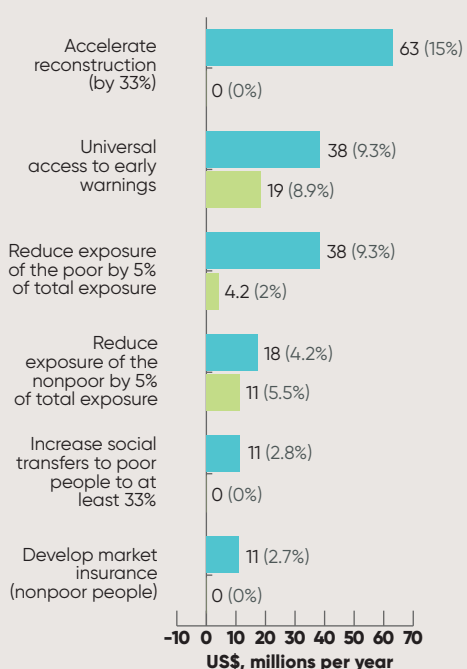
SUDAN

Risk to assets: \$210 million (0.17% of GDP)

Socioeconomic resilience: 50%

Risk to well-being: \$410 million (0.33% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



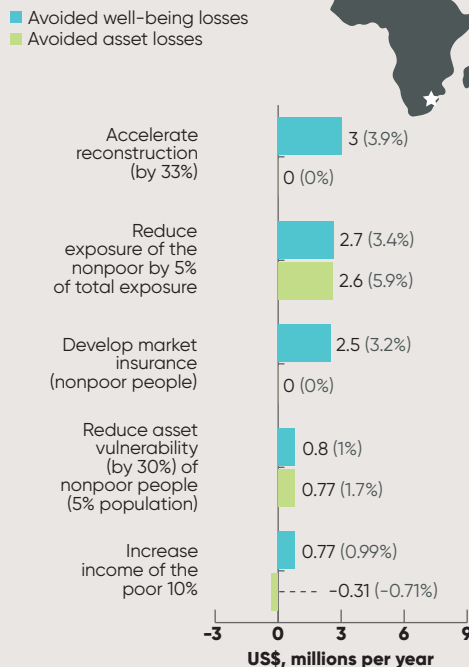
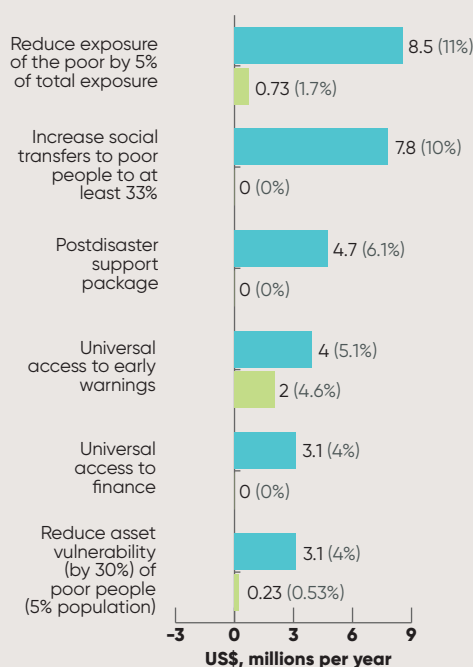
SWAZILAND

Risk to assets: \$44 million (0.54% of GDP)

Socioeconomic resilience: 56%

Risk to well-being: \$78 million (0.96% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



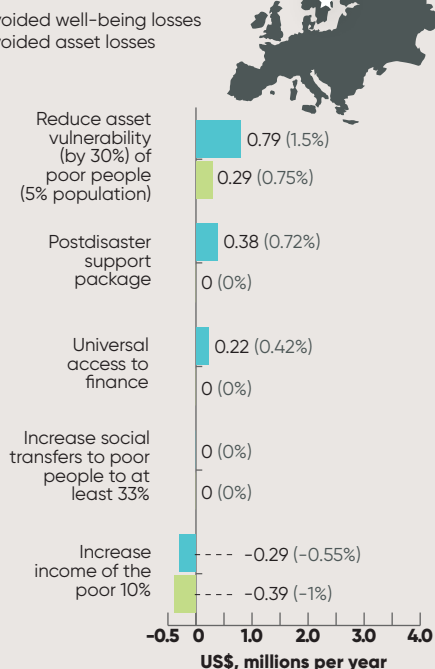
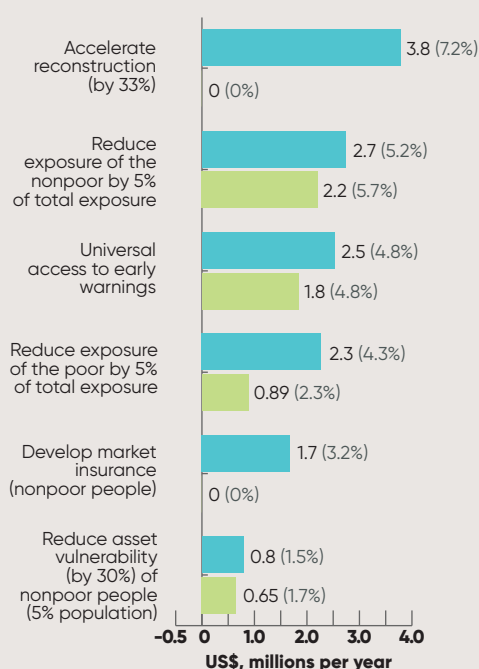
SWEDEN

Risk to assets: \$38 million (0.01% of GDP)

Socioeconomic resilience: 73%

Risk to well-being: \$53 million (0.01% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



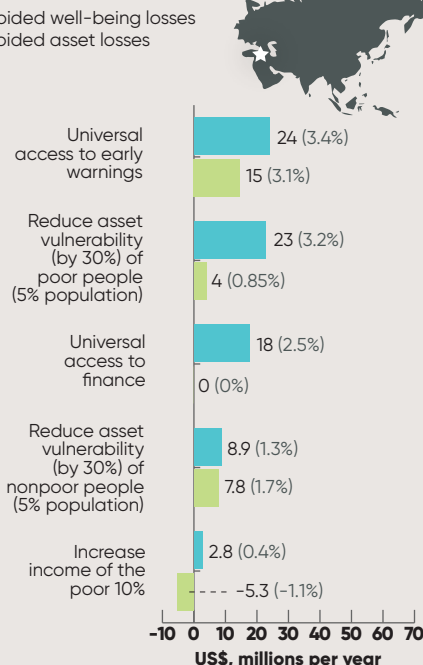
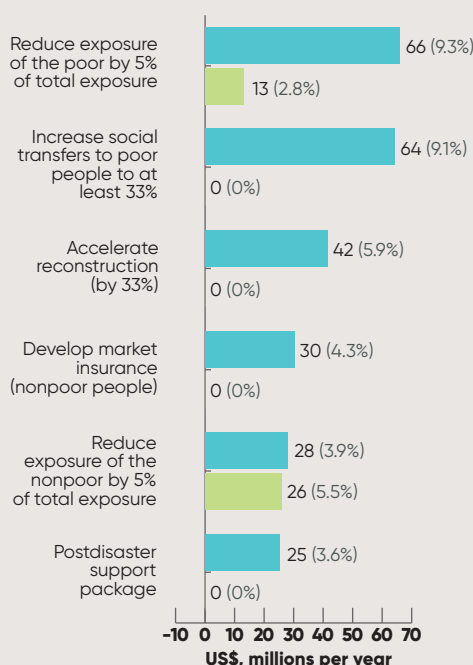
SYRIAN ARAB REPUBLIC

Risk to assets: \$470 million (0.41% of GDP)

Socioeconomic resilience: 66%

Risk to well-being: \$710 million (0.62% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



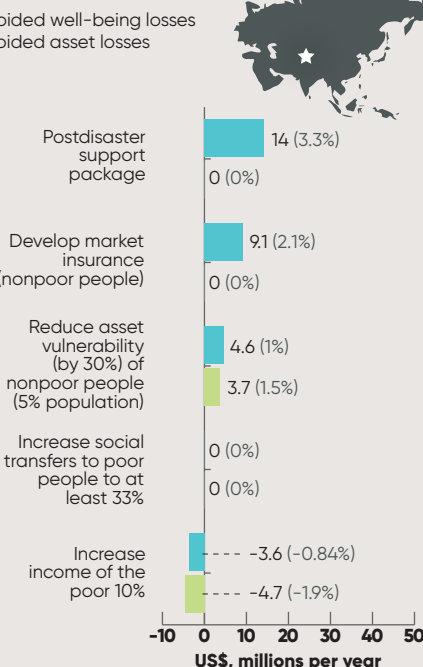
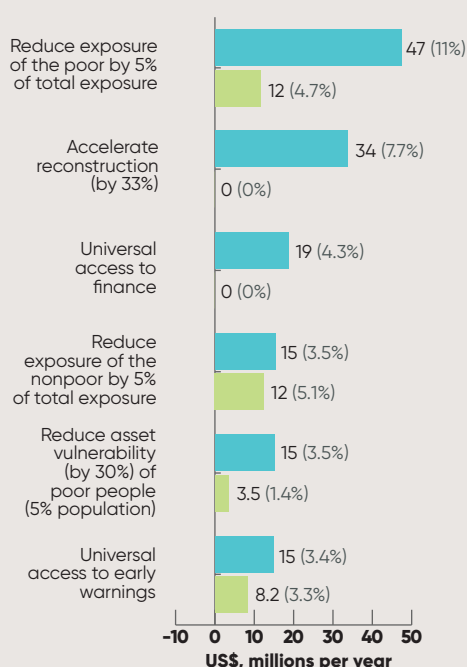
TAJIKISTAN

Risk to assets: \$250 million (1.2% of GDP)

Socioeconomic resilience: 56%

Risk to well-being: \$440 million (2.2% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



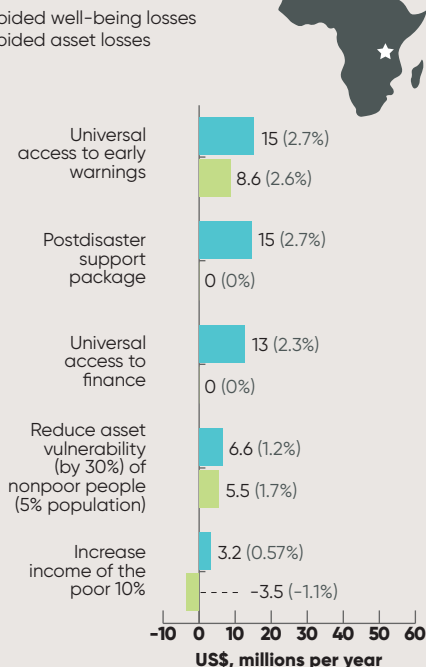
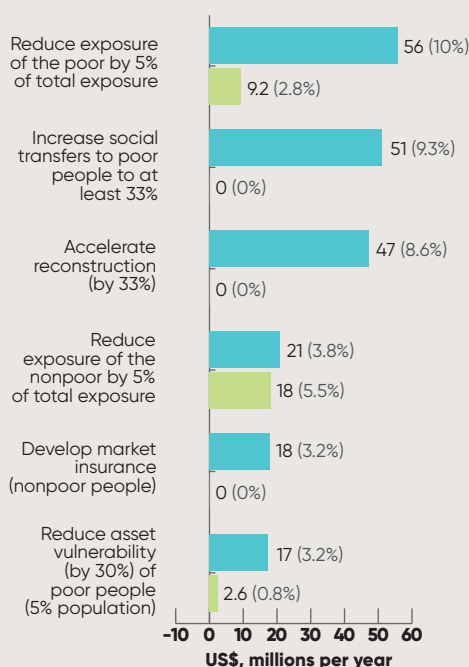
TANZANIA

Risk to assets: \$330 million (0.28% of GDP)

Socioeconomic resilience: 60%

Risk to well-being: \$550 million (0.47% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



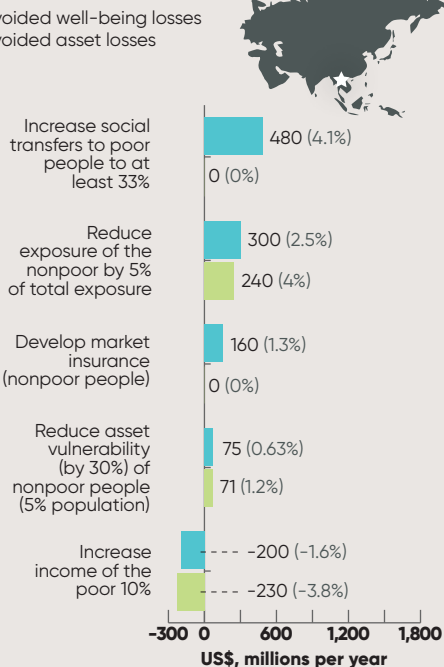
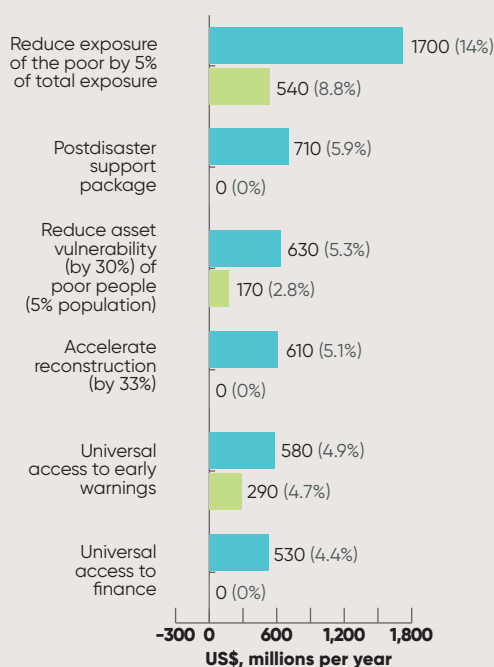
THAILAND

Risk to assets: \$6,100 million (0.65% of GDP)

Socioeconomic resilience: 51%

Risk to well-being: \$12,000 million (1.3% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



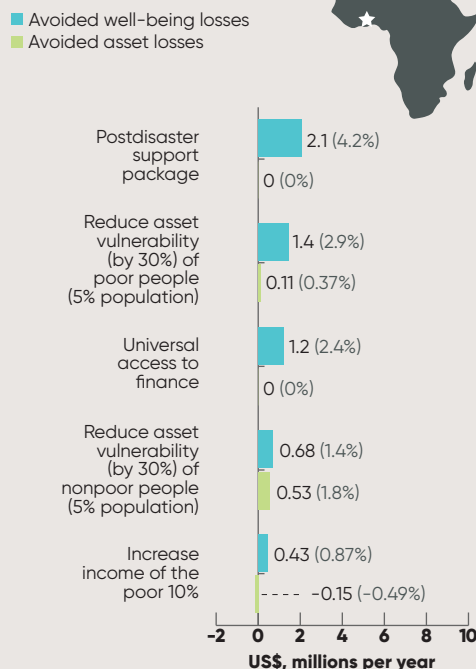
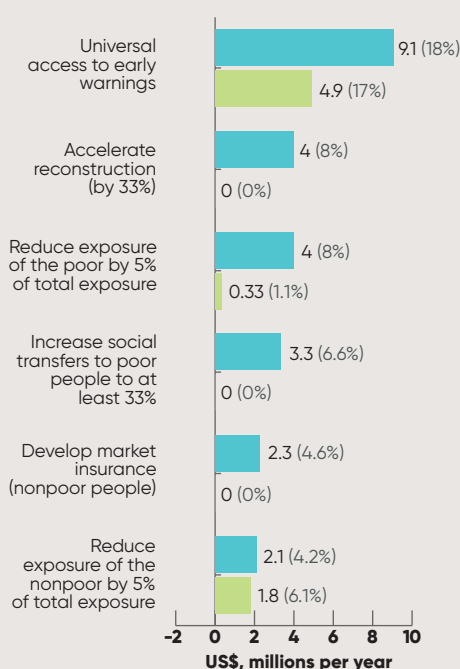
TOGO

Risk to assets: \$30 million (0.32% of GDP)

Socioeconomic resilience: 59%

Risk to well-being: \$50 million (0.54% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



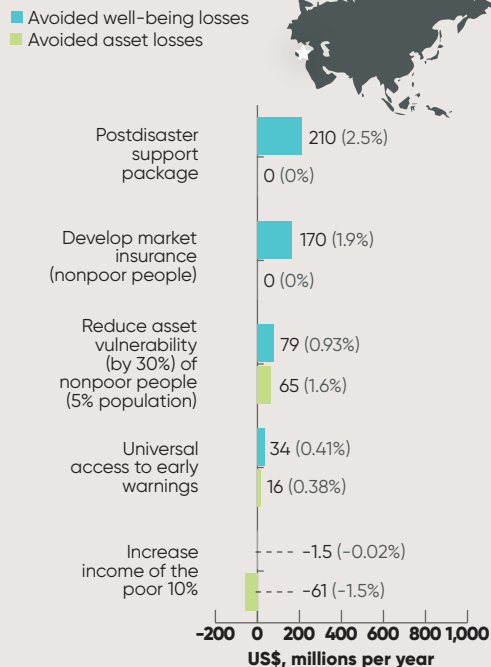
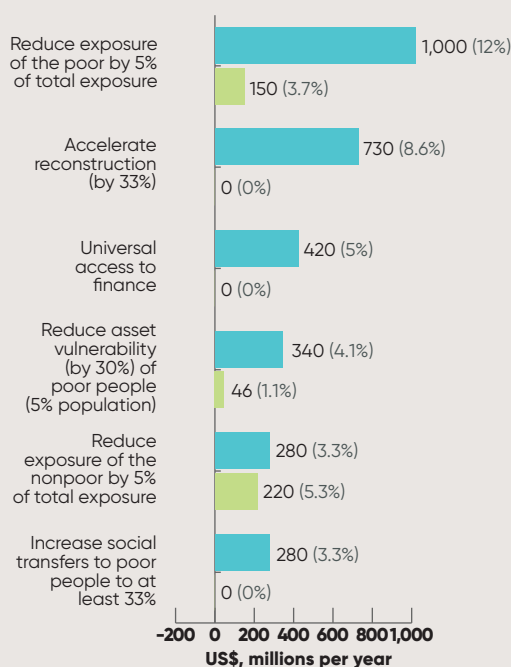
TURKEY

Risk to assets: \$4,100 million (0.29% of GDP)

Socioeconomic resilience: 48%

Risk to well-being: \$8,500 million (0.61% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



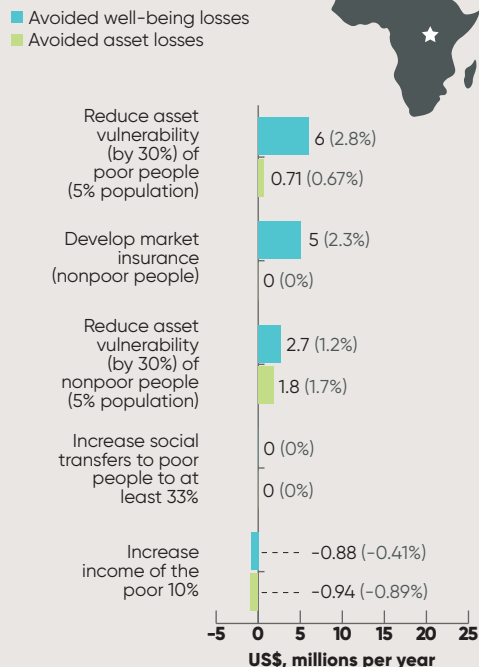
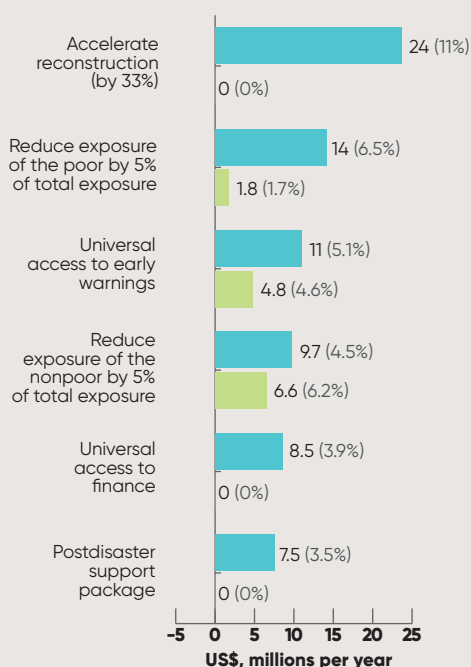
UGANDA

Risk to assets: \$110 million (0.17% of GDP)

Socioeconomic resilience: 49%

Risk to well-being: \$220 million (0.36% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



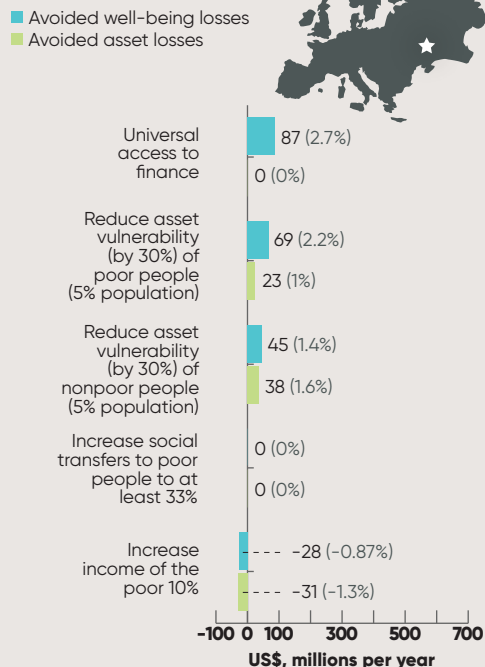
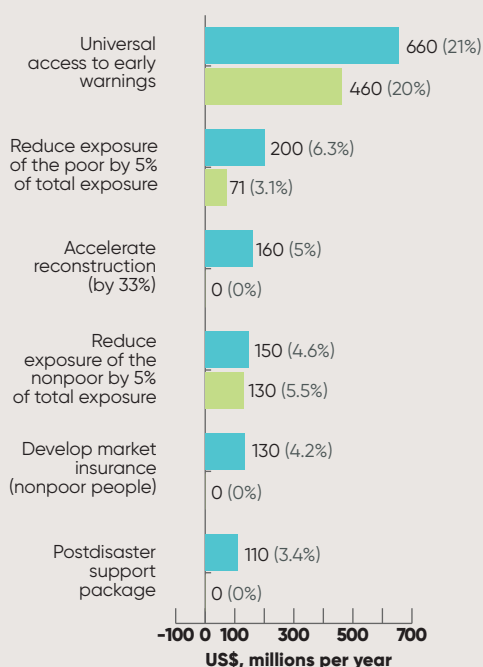
UKRAINE

Risk to assets: \$2,300 million (0.6% of GDP)

Socioeconomic resilience: 73%

Risk to well-being: \$3,200 million (0.82% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



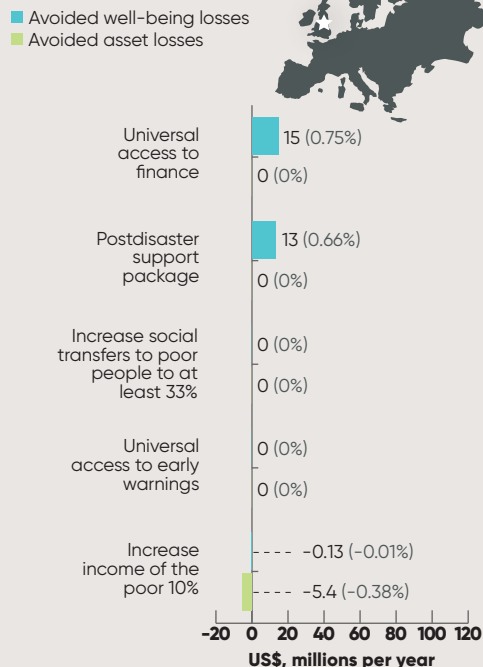
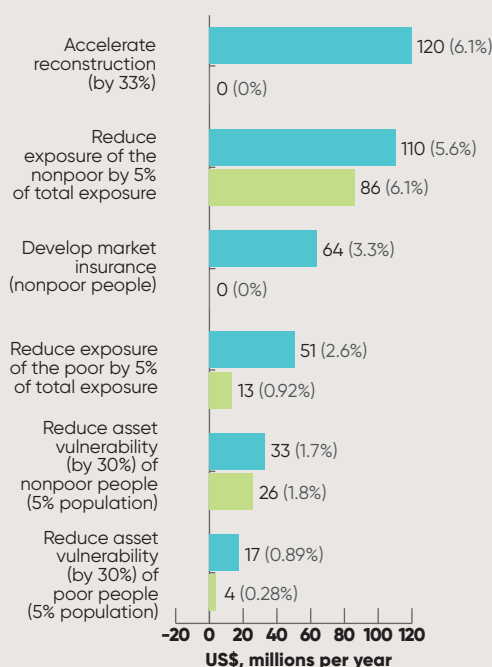
UNITED KINGDOM

Risk to assets: \$1,400 million (0.06% of GDP)

Socioeconomic resilience: 73%

Risk to well-being: \$2,000 million (0.08% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



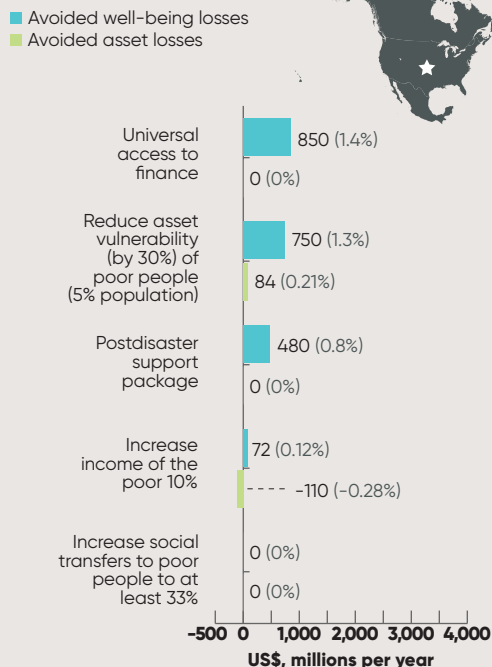
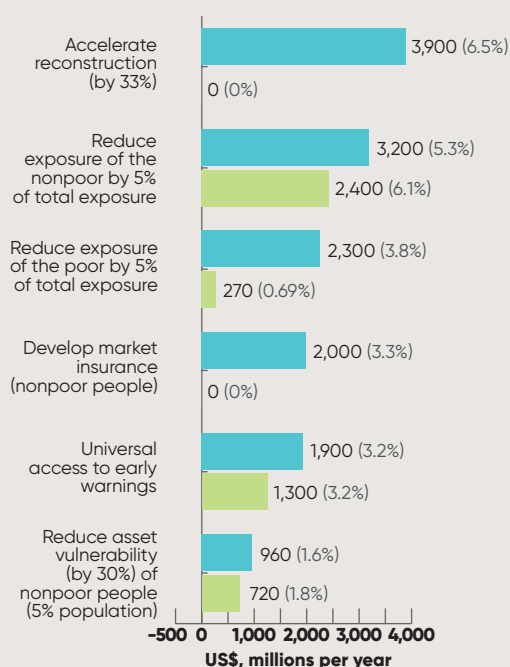
UNITED STATES

Risk to assets: \$40,000 million (0.24% of GDP)

Socioeconomic resilience: 66%

Risk to well-being: \$60,000 million (0.37% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



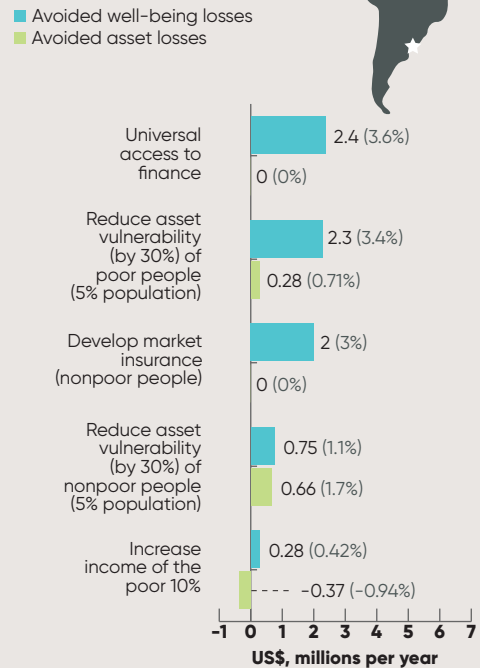
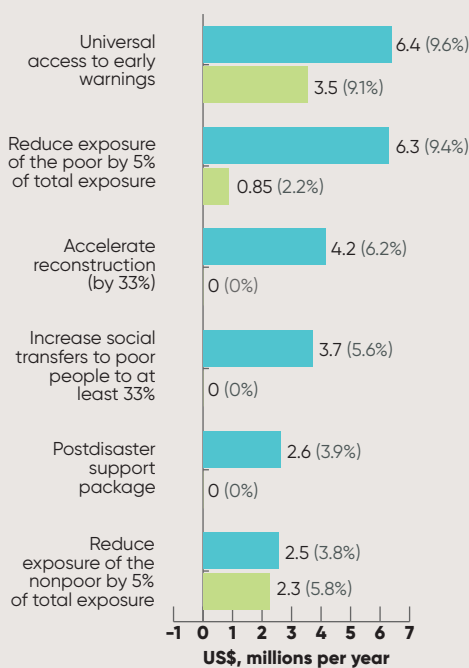
URUGUAY

Risk to assets: \$39 million (0.06% of GDP)

Socioeconomic resilience: 58%

Risk to well-being: \$67 million (0.1% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



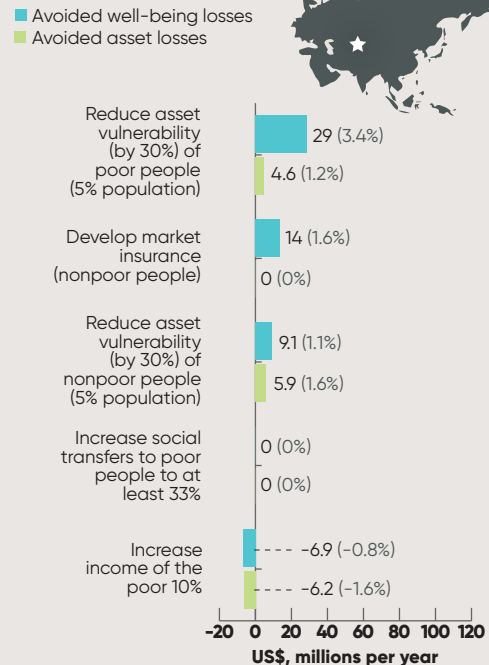
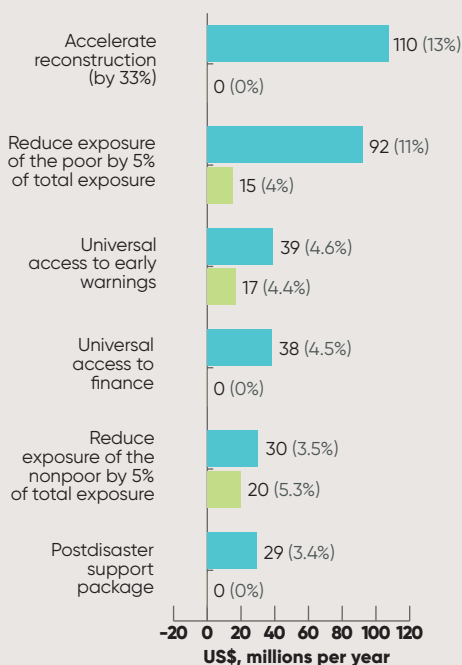
UZBEKISTAN

Risk to assets: \$380 million (0.25% of GDP)

Socioeconomic resilience: 44%

Risk to well-being: \$860 million (0.57% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



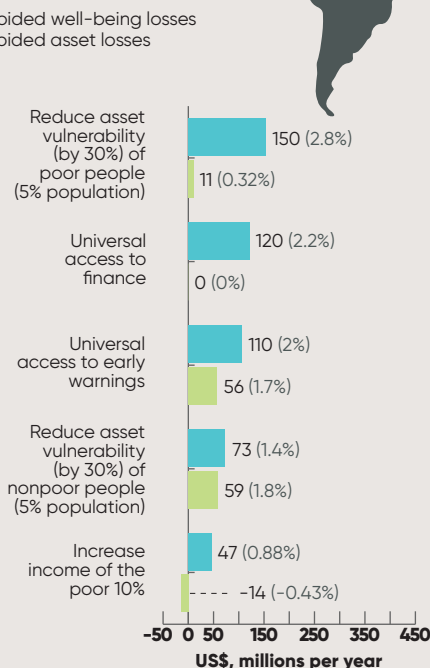
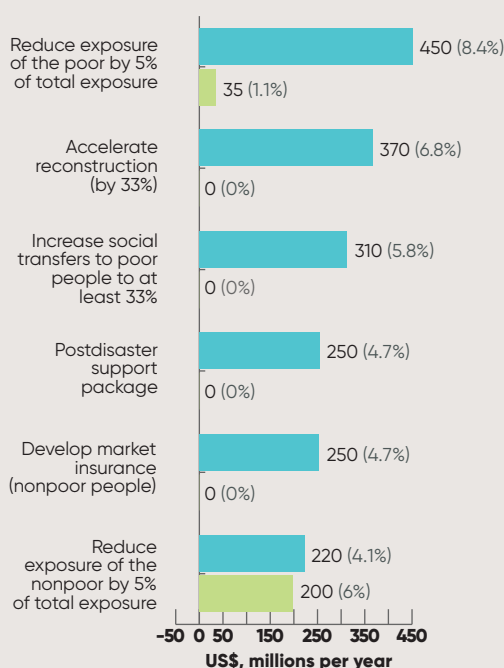
VENEZUELA, RB

Risk to assets: \$3,300 million (0.62% of GDP)

Socioeconomic resilience: 61%

Risk to well-being: \$5,400 million (1.0% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



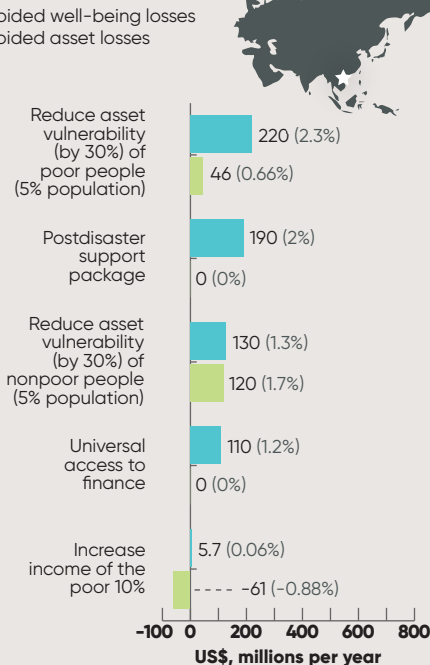
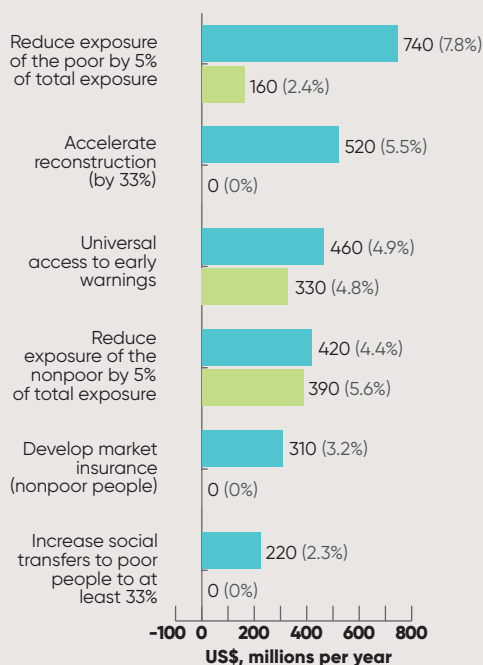
VIETNAM

Risk to assets: \$6,900 million (1.5% of GDP)

Socioeconomic resilience: 73%

Risk to well-being: \$9,500 million (2.1% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



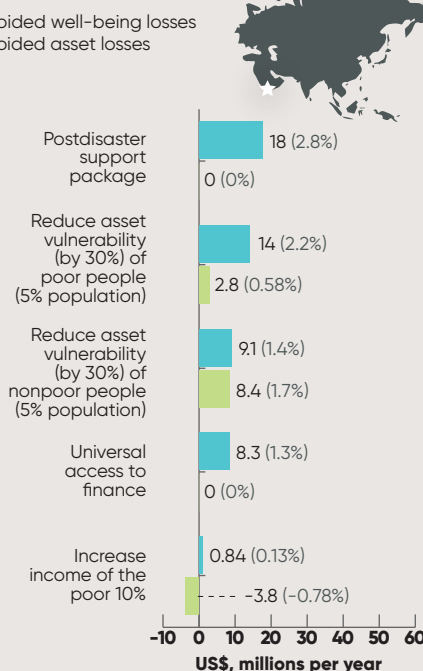
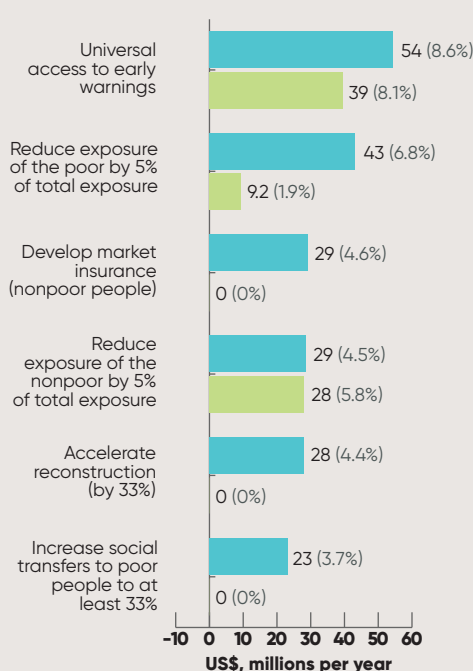
YEMEN, REP.

Risk to assets: \$480 million (0.52% of GDP)

Socioeconomic resilience: 77%

Risk to well-being: \$630 million (0.68% of GDP)

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



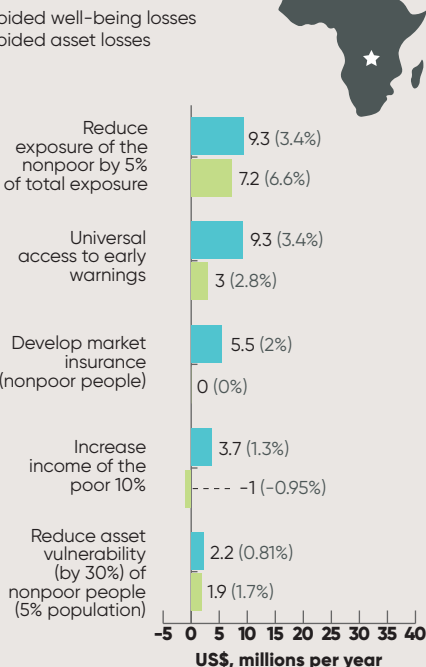
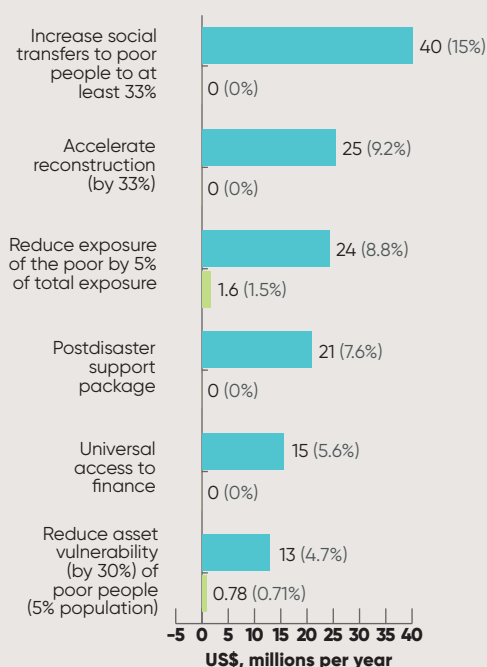
ZAMBIA

Risk to assets: \$110 million (0.2% of GDP)

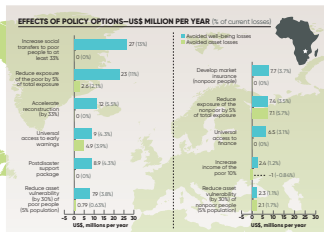
Socioeconomic resilience: 40%

Risk to well-being: \$280 million (0.5% of GDP)

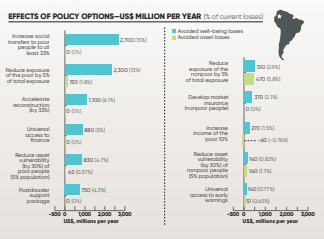
EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



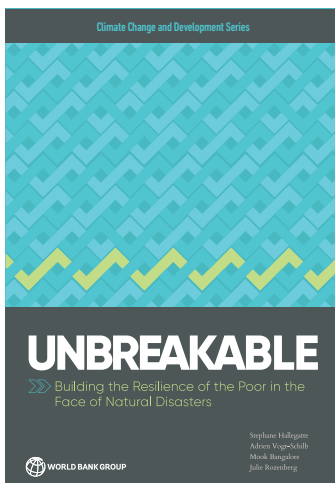
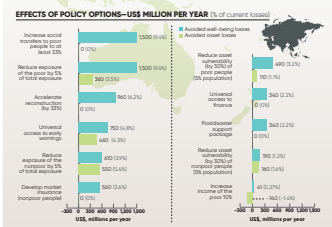
MALAWI



COLOMBIA



BANGLADESH



The report *Unbreakable: Building the Resilience of the Poor in the Face of Natural Disasters* investigates many policies that can reduce the well-being losses due to natural disasters, looking at policies to avoid disasters and reduce asset losses—such as land-use planning and protection infrastructure—and at policies that make the population better able to cope with and recover from disasters that cannot be avoided. The report provides estimates of the potential benefits from these policies, on a global scale and in a few selected countries. Here, we provide estimates of the benefits of these policies in the 117 countries that have been analyzed. We start by reproducing chapter 7 of the main report, which illustrates the approach using a few countries with very different characteristics, and then we provide disaster management profiles for every country.