



Vulnerability indicators in aid allocation

By

Patrick Guillaumont

The E15 Initiative

Second Expert Group Workshop on Finance and Development

7-8 July 2015, Geneva



The issue

- Any donor has an allocation model, implicit or explicit
- Explicit model more needed for multilateral or global allocation
- Any normative model should combine equity and effectiveness criteria
- The PBA, most usual model, does not meet these principles
- Taking into account vulnerability helps meeting the principles
- Appropriate indicators needed to do so



Outline

- Why vulnerability indicators are needed for allocating development assistance
- Which vulnerability indicators are needed to do so
- Can be extended from usual ODA to concessional resources for adaptation



I

Why vulnerability indicators are needed for allocating development assistance



Geographical allocation of development assistance: the present debate

- Traditional wisdom dominated by the « PBA », the «performance based allocation »: aid should mainly be allocated to countries according to their «performance»
- PBA is first a formula used by the MDBs (and some bilateral donors) for the allocation of their concessional resources, with performance measured by the «CPIA» (Country Policy and Institutional Assessment),
- PBA is also a kind of general principle on which the international community is supposed to agree...
- But is strongly debated...and far to be fully applied



Why a debate?

- PBA gives an overwhelming weight to the assessment of policy and governance of recipient countries (through the « CPIA » and mainly its governance component)
- It does not take into account their vulnerability, neither their distance to the MDGs (in particular in health and education)
- In spite of criticisms, reluctance of several main donors to change
- However move of ideas and better appreciation of the need to take vulnerability into account,
- illustrated by various UN SG reports to the Development Cooperation Forum (since 2008 and 2010)



Taking into account structural vulnerability would improve the PBA for five reasons

- Restoring the real meaning of performance
- Enhancing equity by compensating structural handicaps and avoiding double punishment
- Drawing lessons of aid effectiveness literature
- Increasing transparency by limiting exceptions
- Looking for stability, predictability and countercyclicity



Towards an improvement

- Followingly, robust rationale for taking into account structural vulnerability, as well as a low level of human capital in aid allocation, besides an appropriate indicator of « performance » with a lower weight than presently: would meet principles of equity, effectiveness, transparency
- Can be done by using available and commonly agreed indicators, such as EVI (for structural vulnerability) and HAI (for human capital), used at UN for LDCs identification along with GNIpc,
- Donors explicitly invited to do so in Dec.2012 by UNGA resolution on the smooth transition of graduating LDCs (A/C.2/67/L.51)
- and EC having done it...
- Always possible to *improve or adapt the index* of structural economic vulnerability, as seen below



Performance vs vulnerability, also an issue with regard to climate change funding

- More and more resources will be devoted to the *adaptation* to climate change.
- The allocation of these resources meets the same issue as ODA
- Presently also ruled by performance/policy (eg GEF), with specific reference to environment policy, but without a clear rationale
- Since low-income countries are not responsible for climate change, it is *equitable* that the concessional funds for adaptation be allocated mainly according to the vulnerability to climate change
- through an indicator such as PVCCI, not dependent on policy
- Weak capacity to adapt for structural reasons should also be considered separately, and captured by GNIpc and HAI
- Capacity to implement, an effectiveness criterion, may be added



Criteria for the allocation of adaptation resources: common features with ODA

- A weak *capacity to adapt* for reasons not depending on present policy (ie a low structural resilience), legitimating a higher allocation in both cases, should also be considered separately ,and can be captured through the low level of GNIpc and human capital
- But a low *performance rating* (policy and governance), or capacity to implement (as named in the climate change literature), as an effectiveness criterion , may lead to a lower allocation (with a smaller weight than presently)
- It may also lead to *specific modalities* of support (projects vs budget)



Comparison of vulnerability as an allocation criterion for adaptation resources and for ODA

- Physical vulnerability criterion, more clearly exogenous and easily accepted than the structural economic vulnerability one :
can the ODA allocation be influenced by climate adaptation?
- Reference to effectiveness (« performance ») may in both cases be also needed , but not clear what kind of performance is relevant in each case, in particular for the adaptation to climate change :
 - environmental performance? a moral, but debatable argument
 - general performance: the same factors have an impact on development and on adaptation
- Differentiation more logical if performance assessment includes an assessment of project implementation, as far as projects differ.



Mixing the two allocation processes?

- Economic development and adaptation in poor countries are very close goals
- Although additionality is officially supposed, resources for the two goals are likely to be partial substitute
- If the two kinds of resources were merged, their geographical allocation would need to be treated simultaneously and the two kinds of vulnerability be measured through a synthetic index (while the allocation for mitigation would be treated differently)
- Anyway, a trade-off between development and adaptation goals, is unescapable, that will be reflected in the time horizon and the component weights of the index,



(II)

Designing indices of vulnerability for aid allocation

- To be used for the allocation of concessional resources, indicators of vulnerability should not depend on present policy
- They should primarily reflect both the likely size of the shocks and the exposure to these shocks
- They should capture either a medium-term economic vulnerability or a long term physical vulnerability to climate change
- Focus on two indicators already calculated as indices
 - EVI: the economic vulnerability index (UN CPD)
 - PVCCI: a physical vulnerability to climate change index (Ferdi)



The structural economic vulnerability as measured by the Economic Vulnerability Index (EVI)

- Designed by the UN CDP for the identification of LDCs, EVI has been set up first in 2000, then revised, mainly in 2005, then slightly in 2011
- Captures only structural components of vulnerability, chosen with regard to their expected (or evidenced) effect on economic growth
- Transparent and parsimonious, EVI relies on
 - 4/5 main (structural) exposure components (ex ante vulnerability)
 - and 3 (exogenous) shock components, measuring past recurrent shocks, likely to re-occur in the future and to already hamper future economic growth



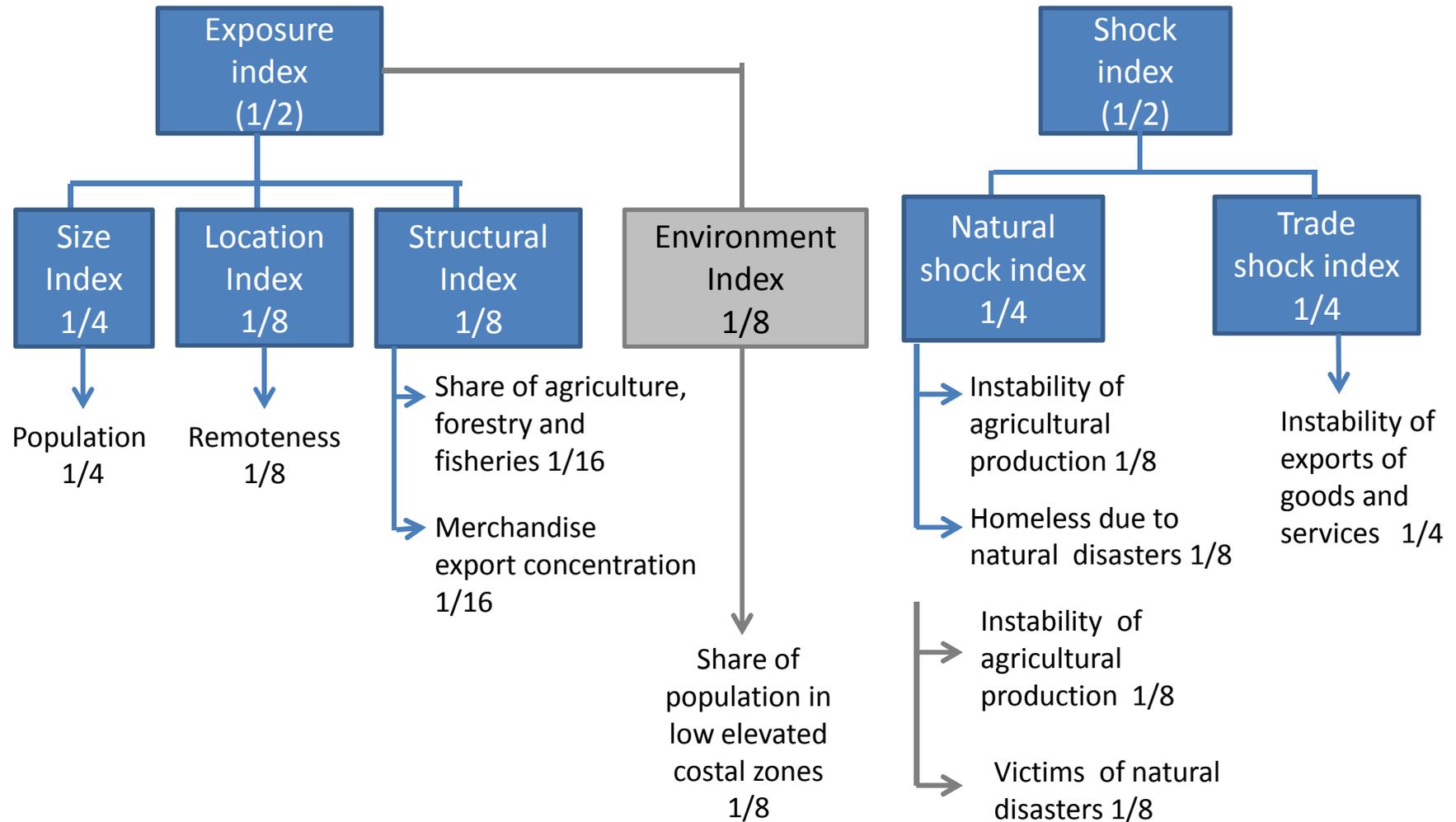
Changes recently brought in EVI ...and challenges

- Changes brought in 2011 for the 2012 review, with same structure
- Among shocks components, homeless population due to natural disasters replaced by population affected (« victims »)
- And a new exposure component added ,
the % of population living in low coastal area,
same weight now given to each of the new 4 sub-components
- *Means a small move to make LDCs countries meeting structural obstacles to sustainable development, rather than only to growth*
- But addition unbalanced with respect to dryland countries: alternative measure proposed by Ferdi
- as well as a program called « *Build your own EVI* »



Economic Vulnerability Index (EVI)

■ 2005
■ 2011





**Structural resilience kept aside...
or included in a broader concept of structural vulnerability**

- General vulnerability also depends on the capacity to react, indeed dependent on present policy (main part), but also on structural factors, the « structural resilience »
- Structural factors of resilience are broad factors, to a large extent captured by separate indicators, in particular GNIpc and the Human Assets Index (HAI), that with EVI are used as complementary criteria for the identification of LDCs or additional criteria for aid allocation
- Possible to include them in a broader concept of vulnerability , such as the SHI or LLDI index
- But would blur the specificity of the vulnerability concept

Economic vulnerability and vulnerability to climate change

- *Vulnerability to climate* already taken into account through two components of EVI (population affected by natural disasters, instability of agricultural production), and now more specifically by the risk to be flooded due to the sea level rise (an exposure component of *vulnerability to climate change*)
- But vulnerability to climate change differs from the economic vulnerability by its nature (more physical) and time horizon (longer): it reflects a long term *risk of change in geo-physical conditions*, not a structural handicap to economic growth in medium term
- And is a vulnerability to only one (major) environmental factor: other possible factors (eg earthquakes)



Which index of vulnerability to climate change is needed

- Depends on the goal pursued (many indices available), here is needed an index likely to be used (among others) to allocate resources for adaptation (to allocate more to the more vulnerable)
- Should be independent not only of the current policy (as EVI), but also of future policy: countries more vulnerable because of a poor present or expected policy/resilience should not be rewarded for that
- Since vulnerability to CC is a quite long term one, it should preferably be captured through *physical* components
- This is the main feature of the recent Ferdi *Physical Vulnerability to Climate Change Index* (PVCCI), as such differing from other attempts (CGD 2011, Barr et al. 2010)

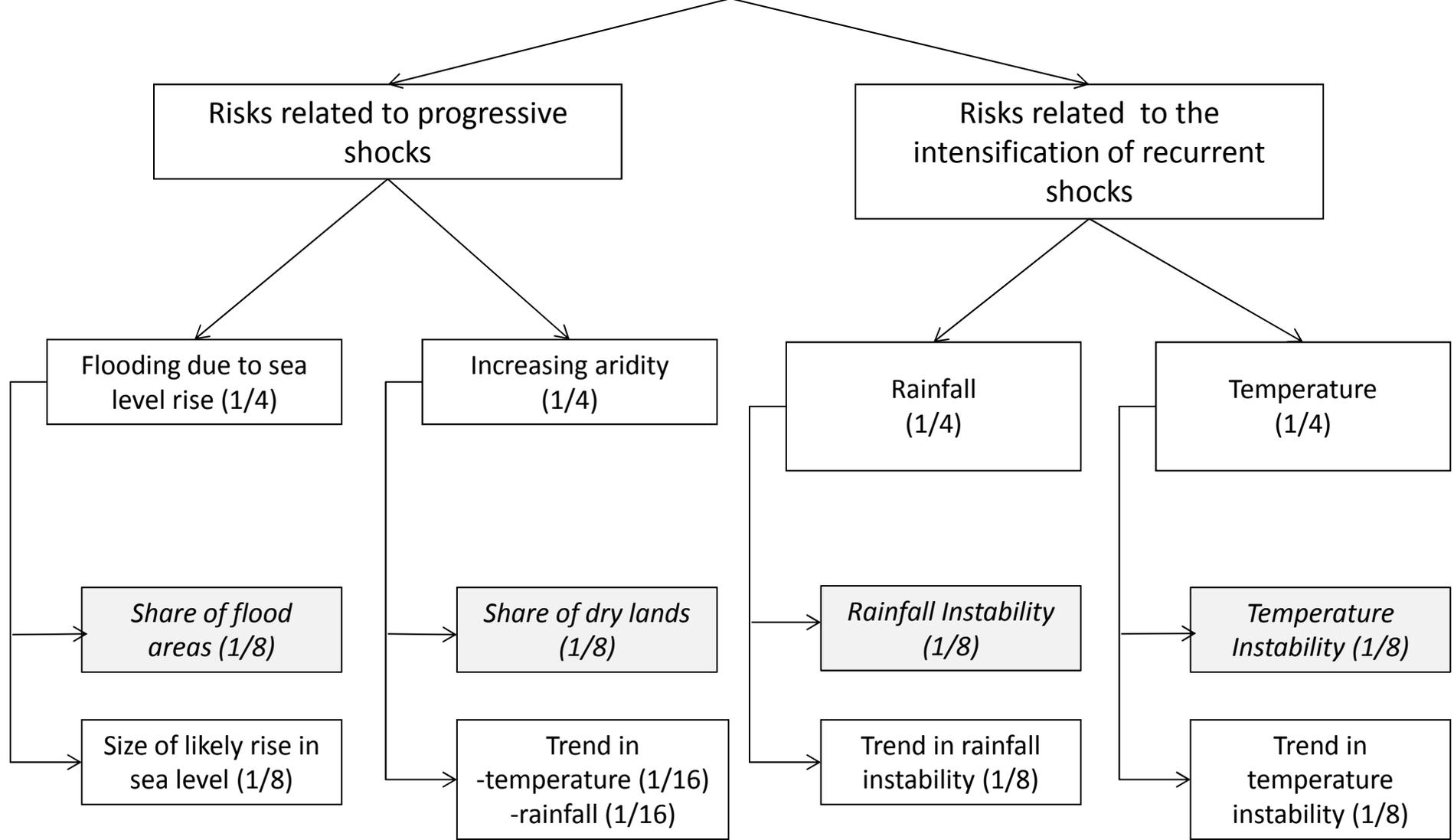


A physical vulnerability to climate change index: main features

- Forward-looking and likely to capture long term risks
- Relies only on geo-physical components, without any debatable socio-economic component
- So does not include components reflecting the adaptive capacity
- Makes a distinction between two kinds of risks due to climate change
 - risks related to *progressive shocks* (such as sea level rise or desertification)
 - risks related to the *intensification of recurrent shocks* (such as rainfall or temperature shocks, or typhoons)
- Makes another distinction between the shocks and the exposure to the shocks, because the impact of the shocks depends on the initial exposure,
- And uses a quadratic averaging to capture interactions
- Still tentative (and change in the data basis)



Physical Vulnerability to Climate Change Index PVCCI



NB. The boxes corresponding to the two last rows of the graph respectively refer to exposure components (*in italics*) and to size of the shocks components



Adaptive capacity and resilience, again kept aside

- (Weak) adaptive capacity often considered as a part of climate vulnerability indicators
- As economic resilience, it depends on various structural factors, and is not determined only by present policy factors
- But again these structural factors are very broad: including them would lower the specificity of the vulnerability concept
- Better to take them into account separately through indicators such as income pc or human assets index
- Indeed the same as for economic resilience with EVI



(Mixing the two indices?)

- There is a rationale for keeping two separate indices:
 - difference of time horizon
 - difference of scope (economic vs geo-physical impacts)
- But *fusion* in an extended structural vulnerability index, combining the two indices is conceivable (only one redundant component in EVI, where it could be deleted)
- The relative weight then given to each of the two indices would reflect the time preference of users, as well as their relative concern about economic growth and environment stability.
- The relevance of integrating depends on the use of the indices for international policies



Corresponding papers

- Guillaumont P. (2013) « Measuring Structural Vulnerability to Allocate Development Assistance and Adaptation Resources », *Working Paper*, 68 Ferdi, September , revised January 2015
- Guillaumont P. and L. Wagner (2015) « PBA, still alive? » forthcoming in *Handbook on the Economics of Foreign Aid*, edited by Mark Arvin
- Guillaumont P. , S. Guillaumont Jeanneney and L.Wagner (2015), « How to take into account vulnerability in aid allocation criteria” Ferdi Working Paper, 13, revised and forthcoming

F&D*i*

F&D*i*

F&D*i*

F&D*i*

F&Di