



# GeoSUR

## The Latin American and Caribbean Geospatial Information Network



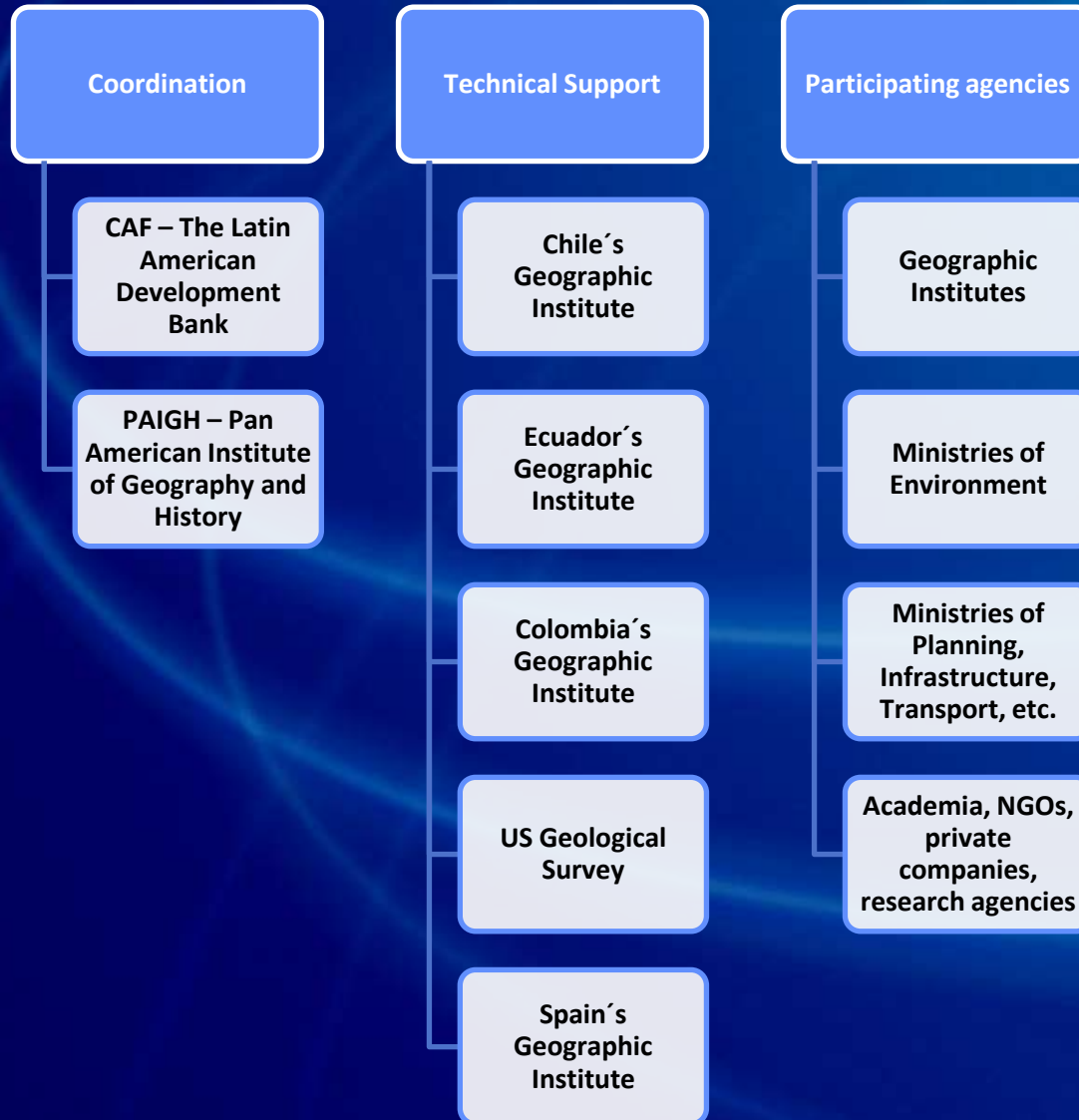
Eric van Praag  
CAF – The Development Bank of Latin America

# Main Objective

To provide decision-makers and the public with local, national, and regional digital maps that facilitate the planning of physical infrastructure, climate change adaptation, regional integration and other development goals.



# GeoSUR s Institutional Framework



# Participating agencies

1. Instituto Geográfico Nacional , Argentina
2. Instituto Geográfico Nacional , El Salvador
3. Instituto Geográfico Nacional , Costa Rica
4. Instituto Geográfico Nacional , Perú
5. Instituto Geográfico Nacional , Guatemala
6. Instituto Geográfico, Venezuela
7. Instituto Geográfico, Colombia
8. Instituto Geográfico Militar, Chile
9. Instituto Geográfico Militar, Ecuador
10. Instituto Geográfico Militar, Bolivia
11. Instituto Cartográfico, Rep. Dominicana
12. Instituto Geográfico, Panamá
13. Servicio Geográfico Militar, Uruguay
14. Servicio Geográfico Militar, Paraguay
15. Land Information Center, Belize
16. Centro Información Espacial, Haiti
17. Management Instituut, Suriname
18. Land Information Council , Jamaica
19. IBGE, Brasil
20. INETER, Nicaragua
21. INPE, Brasil
22. Surveys and Mapping Division ,Trinidad
23. INEGI, México
24. SNIT, Chile
25. Geobolivia
26. CONCAR, Brasil
27. CLIRSEN Ecuador

28. Ministerio del Ambiente, Perú
29. Ministerio Ambiente, Rep. Dominicana
30. Ministerio del Ambiente, Costa Rica
31. Ministerio del Ambiente, Guatemala
32. Ministerio de Ambiente, Ecuador
33. Ministerio de Ambiente, Brasil
34. Dirección Medio Ambiente, Uruguay
35. IDEAM , Colombia
36. CIREN, Chile
37. Instituto Von Humboldt, Colombia
38. Secretaría de Ambiente, Paraguay
39. Autoridad Nacional Ambiente, Panamá
40. Ministerio de Medio Ambiente, Chile
41. Ministerio Obras Públicas, Chile
42. Ministerio Obras Públicas, Paraguay
43. Ministerio de Transporte, Perú
44. Ministerio de Transporte, Colombia
45. Ministerio Desarrollo Urbano, El Salvador
46. Consejo Nacional de Electricidad, Ecuador
47. SEGEPLAN, Guatemala
48. ANATI Panamá
49. IVIC, Venezuela
50. CPDI, Venezuela
51. Instituto Nacional de Estadísticas, Bolivia
52. Instituto Nacional Estadística, Panamá
53. Instituto Nacional Estadística, Costa Rica
54. Instituto Socio Ambiental, Brasil

55. Programa Catastro, Costa Rica
56. Instituto Geológico INGEMMET ,Perú
57. Intendencia de Montevideo
58. Alcaldía de Bogotá
59. Alcaldía de Chacao
60. Gobernación de Miranda.
61. Sistema Emergencias, Uruguay
62. Ministerio de Agricultura, Nicaragua
63. Water Resources Authority, Jamaica
64. Electoral Office, Jamaica
65. Institute of Marine Affairs, Trinidad
66. Empresa SIGIS
67. University of the West Indies, Trinidad
68. The Nature Conservancy
69. Universidad del Azuay, Ecuador
70. UNIGIS
71. Banco Interamericano de Desarrollo
72. Centro Internacional Agricultura Tropical
73. Comunidad Andina
74. JRC, Unión Europea
75. OneGeology
76. OTCA
77. IIRSA
78. ITC
79. Nature Serve
80. Proyecto USAID Andes Amazónicos

# The GeoSUR geoservices



Services of more than 80 participating agencies



# Topographic Processing Service



- Free tool.
- User can produce a watershed delineation, slope map, watershed analysis, elevation map, etc.
- First of its kind in the developing world.
- Can be enhanced to incorporate climate change analysis.

# Topographic Processing Service

- Watershed delineation
- Raindrop trace
- Viewshed analysis
- Altitude profiles
- Shaded relief
- Classified shaded relief
- Slope
- Classified slope
- Aspect

**WITH**

- SRTM 30 m.
- SRTM 90 m.
- GTOPO 250 m.
- GTOPO 500 m.
- GTOPO 1Km.

# GeoSUR s Guiding principles

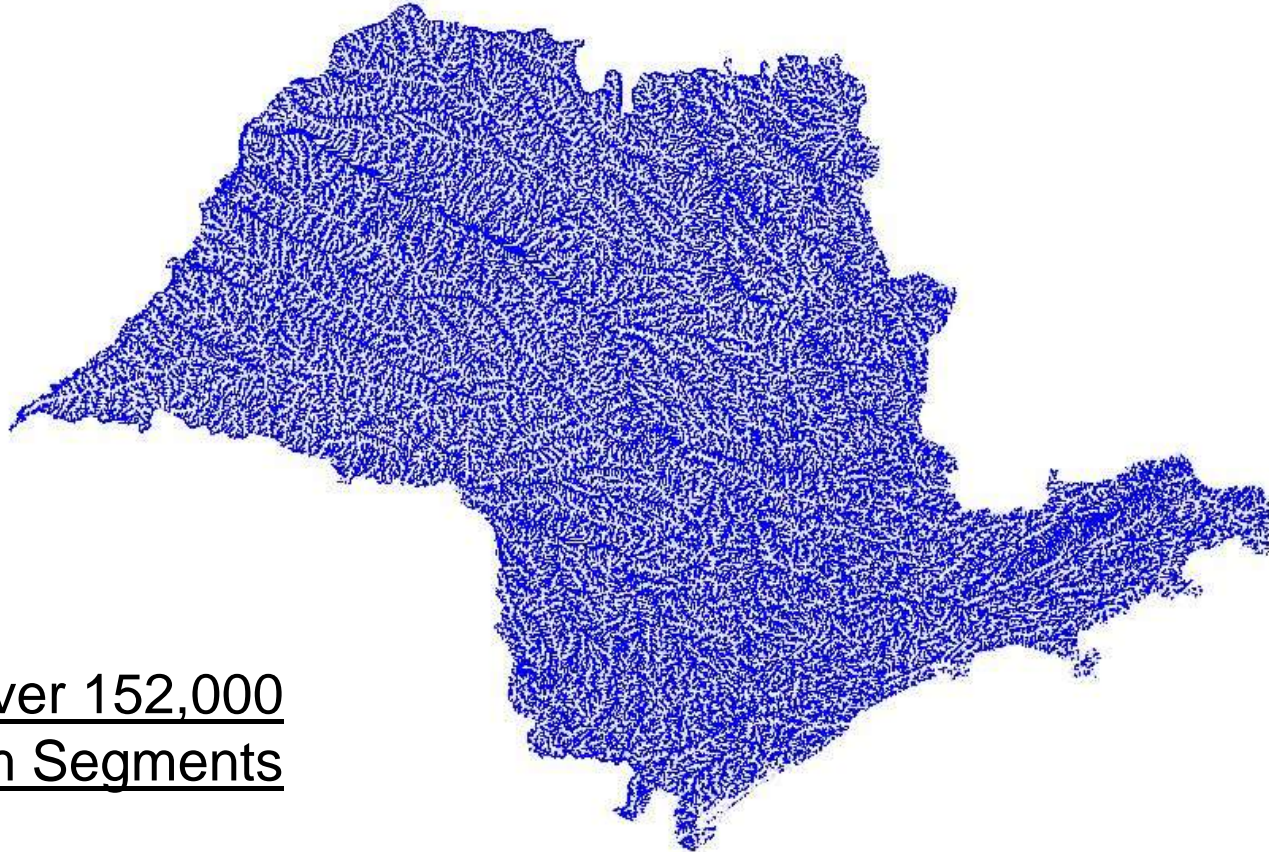
- Respect of participating agencies data policies.
- Decentralized approach, each data producer operates and maintains its own geoservices.
- Technological neutrality, support of open source and commercial platforms.
- Emphasis in the use of standards and protocols to reach interoperability.
- Work is aligned with National SDIs.
- Geospatial information is considered a public good which supports the development of the LAC region.



## GeoSUR, next steps

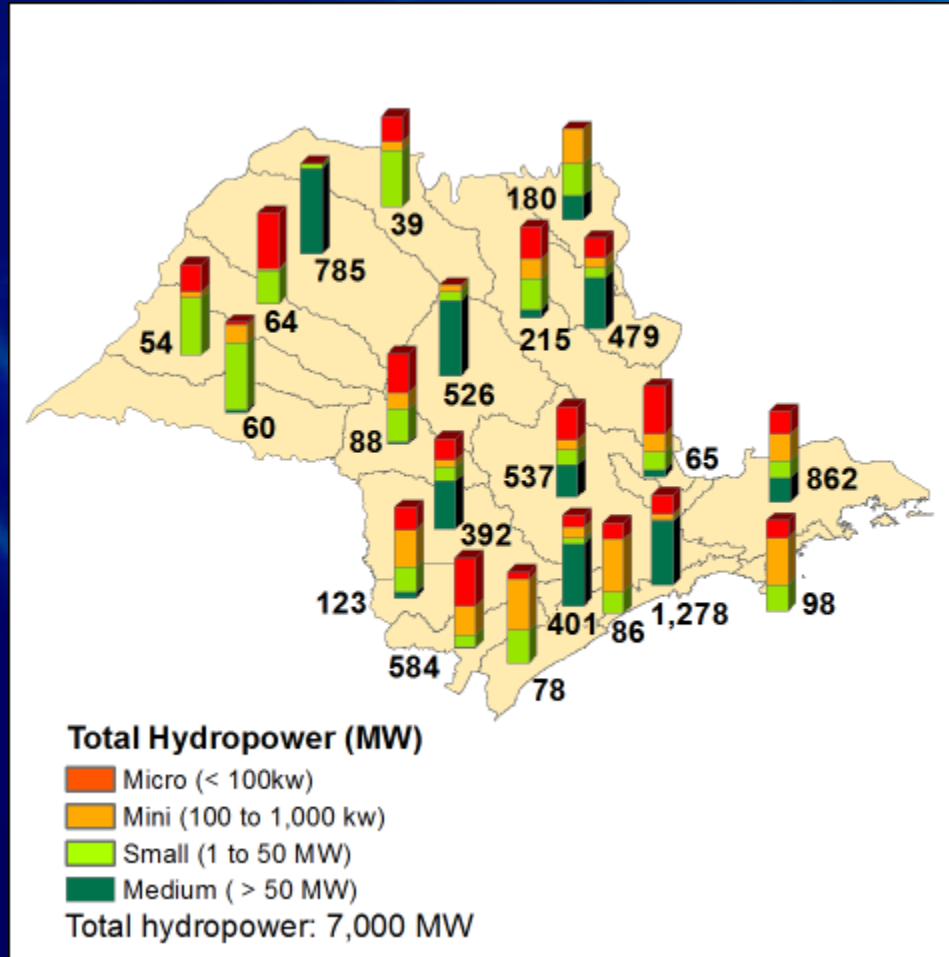
- Incorporate new agencies from new sectors: health, planning, academia, NGOs.
- Add new functionality to the regional platform
- Expand hydro power assessment to other countries
- Apply early warning system application in Andean region
- Secure a sustainable level of funding for the coming years.
- Reach out to decision makers
- Incorporate the geographic dimension into decision-making

# Hydropower Assessment, Sao Paulo State

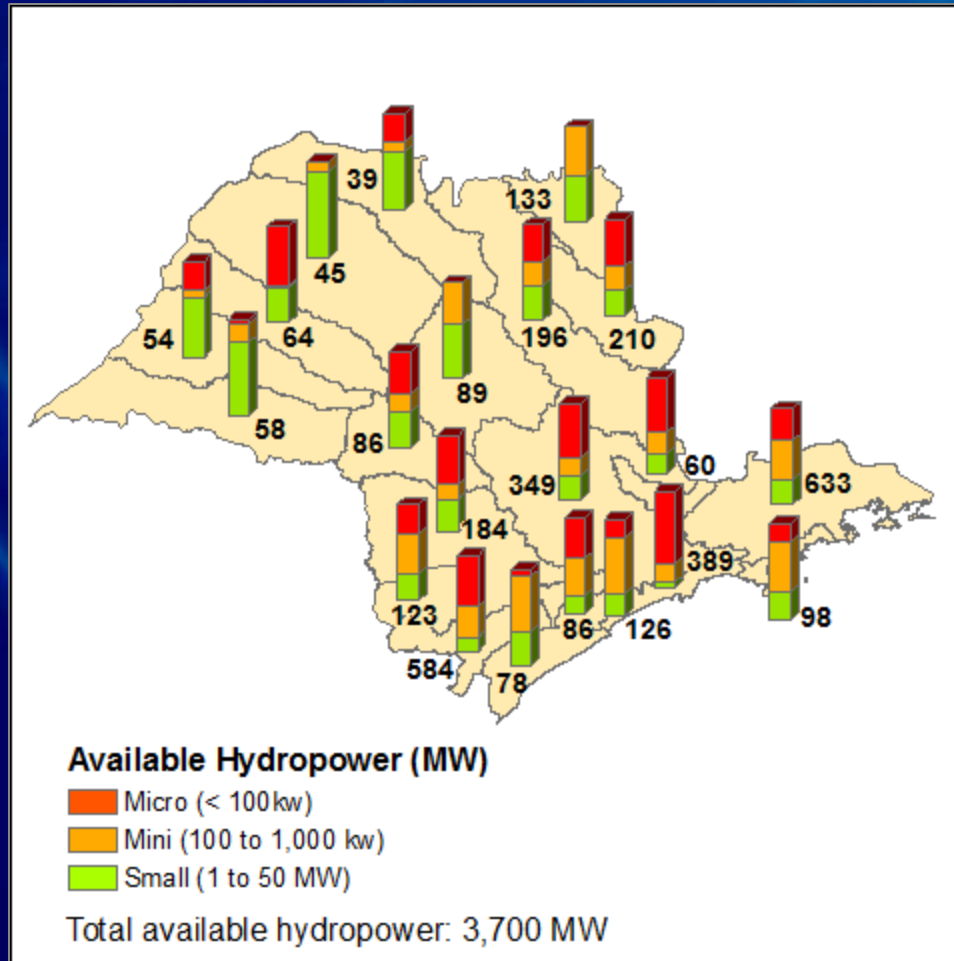


■ Over 152,000  
Stream Segments

# Potential Power by Basin

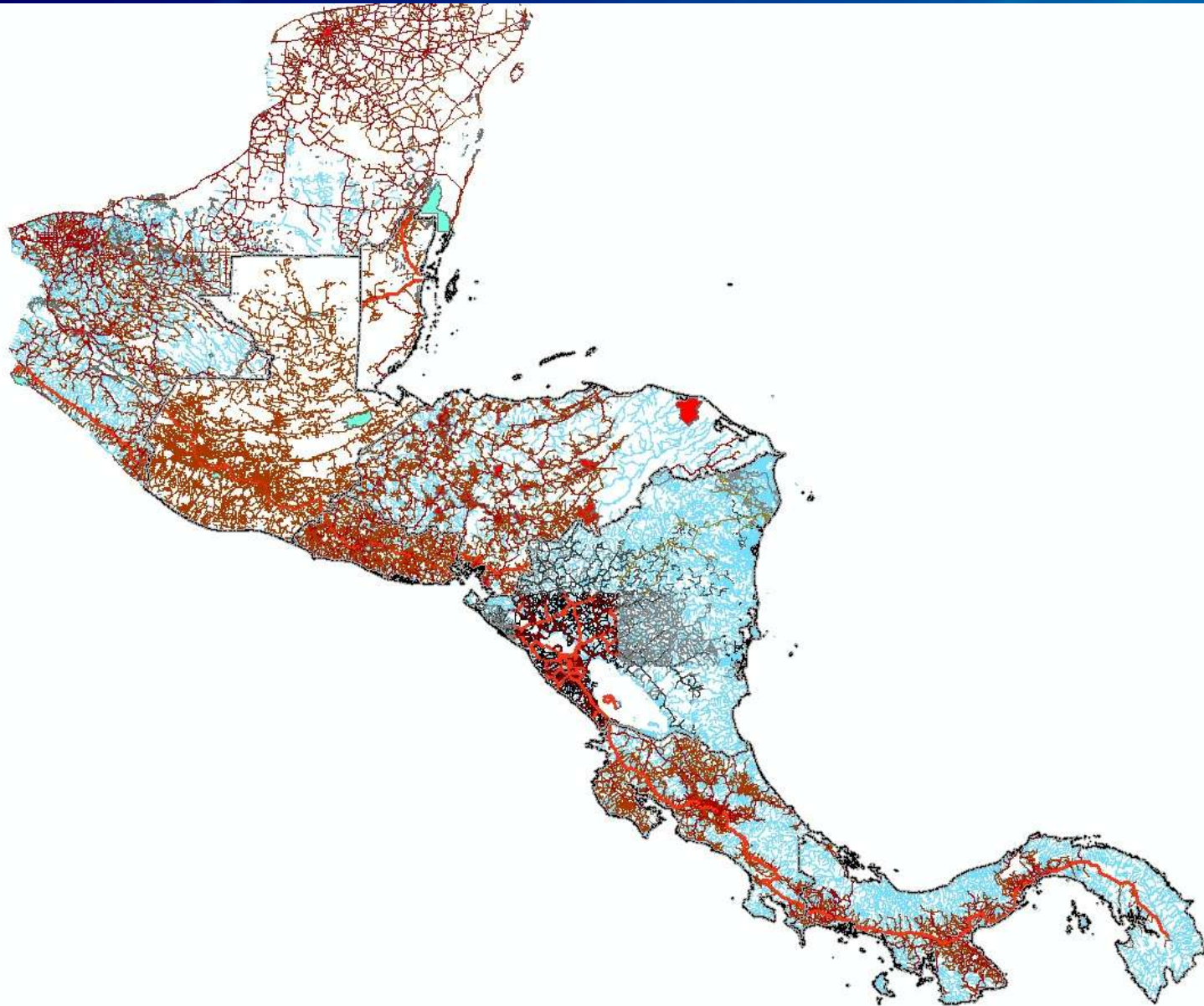


# Available Total Potential Mean Annual Power





# Central American Base Map





# GeoSUR Program – Accomplishments

- The Program is changing the way planners and developers in the region execute projects, by providing easy access to data that lets them analyze potential environmental impacts or estimate benefits to the population, among other uses.
- GeoSUR has developed the first portal to provides access to geographic information from all LAC countries.
- The Topographic Processing Service is the first of its type in the developing world (due to its resolution and geographic coverage).
- The GeoSUR portal provides access to more than 130 WMS services, 50 maps viewers and 10 metadata catalogs. More than 160.000 metadata records are available for searching.

**GeoSUR can provide a model for other information networks in the developing world to be promoted by EoE and Rio+20.**



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**Portal:** [www.geosur.info](http://www.geosur.info)

**THANKS!**





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# GeoSUR



## Geospatial Information for Latin American and Caribbean Integration



### CAF The Latin American Development Bank

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